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**IN THE UNITED STATES DISTRICT COURT
FOR THE MIDDLE DISTRICT OF NORTH CAROLINA**

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UNITED STATES OF AMERICA,)
)
Plaintiff,)
)
ENVIRONMENTAL DEFENSE,)
NORTH CAROLINA SIERRA CLUB,)
NORTH CAROLINA PUBLIC INTEREST)
RESEARCH GROUP)
)
Plaintiff-Intervenors,)
)
v.)
)
DUKE ENERGY CORPORATION,)
)
Defendant.)
)

FILED
U.S. DISTRICT COURT
GREENSBORO, NC

Civil Action No. 1:00 CV 1262

**BRIEF IN SUPPORT OF DUKE ENERGY'S
MOTION FOR SUMMARY JUDGMENT**

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UNITED STATES OF AMERICA,

Plaintiff,

v.

DUKE ENERGY CORPORATION,

Defendant.

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Civil Action No. 1:00 CV 1262

**BRIEF IN SUPPORT OF DUKE ENERGY'S
MOTION FOR SUMMARY JUDGMENT**

I. NATURE OF THE CASE

This case is about an agency -- the Environmental Protection Agency (EPA) -- using litigation to shift fundamentally how the Clean Air Act regulates existing sources of emissions. In this case, EPA is seeking to apply retroactively a new interpretation of the New Source Review (NSR) rules to projects that Duke and other utilities completed long ago. EPA's action is unlawful and fundamentally unfair.

The Clean Air Act (CAA or Act), 42 U.S.C. 7401, *et seq.*, distinguishes between existing sources, and new sources (which includes "modified" sources). Pursuant to the Act, the states set emissions limits for existing sources to meet nationally applicable air quality standards. In addition, technology-based limitations apply to new emissions capacity -- i.e., to newly-constructed sources or "modifications" of already operating sources. For almost three decades, EPA interpreted and applied the Act so as to preserve the distinction between regulating existing sources of emissions and new sources of emissions. EPA's administration of the Act from the 1970s to the late-1990s, and Congressional enactment of additional regulatory programs for existing sources (e.g., the Acid Rain Program enacted in 1990), confirmed that existing sources become "new" or "modified" under the CAA only in a very limited circumstance: when they are expanded in a way that increases their capacity to emit pollutants.

For almost 30 years, industry, the states, and even EPA understood that most common maintenance, repair, and replacement activities designed to maintain a facility's reliability, efficiency, and safety -- and which does not expand the capacity of the facility to emit pollutants -- is not "modification" under the Act. For the past 30 years, Duke as well as every other public utility in the country repaired or

replaced various components on its electric generating units as needed in order to maintain the availability, reliability and safety of the equipment. At Duke and elsewhere, this work was undertaken in full view of the state environmental agencies and EPA. Industry, the states, and EPA understood that this normal replacement or repair of components did not constitute “major modifications” under the NSR regulations because NSR does not apply (a) to activities that do not increase a unit’s emissions rate (i.e., maximum capacity to emit), or (b) to maintenance, repair and replacement activities routine within the relevant industrial category (in this case, the electric utility sector). Unless a component replacement project meets both of these essential elements, it does not trigger NSR. There is no genuine issue of material fact. Under the settled meaning of the NSR regulations, Plaintiff cannot prove these two essential elements and therefore cannot show Duke’s component repairs or replacements triggered NSR.

In 1999 EPA, without regard to appropriate notice-and-comment procedures, fundamentally changed its long-standing interpretation of its NSR rules. EPA launched a so-called “electric utility enforcement initiative,” in which EPA seeks to apply retroactively its new interpretation by filing lawsuits against Duke and other utilities. This “initiative” is based upon a theory of universal liability that seeks to obliterate the Act’s distinction between regulating existing pollution, and regulating new pollution. By asserting that virtually every utility unit in the country has been “modified” (and will become “new” again repeatedly hereafter) when undergoing its normal components replacement and repair, EPA seeks to require the retrofitting of all existing units with the most technologically advanced pollution controls. EPA in the litigation spawned by this “initiative” has thus erased the distinction between regulating existing and new sources of emissions under the Act; ignored the statute and Congressional intent; disregarded the language and intent of its own rules; and thrown aside three decades of EPA’s interpretation of its own rules as well as the states’ implementation of those rules in their role as the primary permitting authorities. EPA cannot, by retroactive enforcement and without notice-and-comment rulemaking, change its interpretation of the regulations as it seeks to do here through litigation. For these reasons, Duke is entitled to summary judgment dismissing Plaintiff’s and Intervenor’s claims.

II. STATUTORY AND REGULATORY BACKGROUND

In its amendments to the CAA over the last 30 years, Congress repeatedly chose not to require existing coal-fired power plants to be retrofitted across the board with advanced pollution control technology. Instead, Congress chose to regulate existing sources of emissions capacity only as necessary to meet national clean air standards developed by EPA and implemented by the states. Congress enacted new source programs to evaluate and minimize the impact of additions of new emissions capacity.

A. Existing Source Programs under the 1970 CAA Amendments

The Act ordered EPA to develop National Ambient Air Quality Standards (NAAQS)¹ to protect the public health and welfare with an adequate margin of safety. *See* CAA § 109, 42 U.S.C. § 7409.² The states, in turn, were asked to develop State Implementation Plans (SIPs), setting source-by-source emissions limits so that each state could meet the NAAQS. *See* CAA § 109(b), 42 U.S.C. § 7409(b).³ Each state issues operating permits to its sources, which incorporate that state's SIP emissions limits. These limits are premised on a permitted source being able to operate at its full existing capacity to emit (*i.e.*, all year at maximum production capacity) without exceeding the NAAQS.⁴

B. New Source Programs

1. The NSPS Program did not regulate existing emissions capacity.

The 1970 amendments also directed EPA to issue New Source Performance Standards (NSPS) to minimize the environmental impact of addition of new emissions capacity.⁵ These standards apply only to new sources of emissions – *i.e.*, newly-constructed sources or “modifications” of already operating

¹ A glossary of acronyms and utility technical terms used in this brief is attached at App. Ex. 1.

² *See also Train v. Natural Resources Defense Council*, 421 U.S. 60, 66-67, 95 S. Ct. 1470, 1476 (1975)

³ *See also Union Electric v. EPA*, 427 U.S. 246, 249-50, 96 S. Ct. 2518, 2522 (1976).

⁴ *See, e.g., Cleveland Elec. Illuminating Co. v. EPA*, 572 F.2d 1150, 1160 (6th Cir. 1978) (“The model [used to calculate required SIP limits] is operated on the assumption that the plants concerned operate 24 hours a day at full capacity and predictions are made for every day of the year.”)

⁵ “The legislative history of § 111 of the Clean Air Act, as amended [NSPS], reveals that Congress was most concerned that new plants—new sources of pollution—would have to be controlled to the greatest degree practicable if the national goal of a cleaner environment was to be achieved.” *Essex Chem. Corp. v. Ruckelshaus*, 486 F.2d 427, 434 n.14 (D.C. Cir. 1973), *cert. denied*, 416 U.S. 969, 94 S. Ct. 1991 (1979).

sources – within the specified source categories to which NSPS apply. Congress defined new source as “any stationary source, the construction or modification of which is commenced after the publication of regulations” implementing NSPS to that category (*i.e.*, type) of source. CAA § 111(a)(2), 42 U.S.C. § 7411(a)(2) (emphasis added). Congress also directed that emissions from NSPS sources be evaluated under SIPs prior to construction to assure that they would not interfere with NAAQS attainment or maintenance. CAA § 110(a)(2)(D), 42 U.S.C. § 7410(a)(2)(D) (1970) (App. Ex. 2).

Congress defined modification as “any physical change in, or change in the method of operation of, a stationary source which increases the amount of any air pollutant emitted by such source or which results in the emission of any air pollutant not previously emitted.” CAA § 111(a)(4), 42 U.S.C. § 7411(a)(4). Congress debated whether to subject existing emissions capacity (already regulated by SIP limits) to the NSPS requirements and -- largely because of the high cost and difficulty of installing new control technologies (“retrofitting”) on already operating sources -- chose not to do so.⁶

EPA’s NSPS regulations were written to make clear that very few activities at existing facilities would trigger NSPS. The regulations stated that “routine maintenance, repair, and replacement shall not be considered [a] physical change”⁷ and that a modification shall not include “maintenance, repair or replacement” projects “routine for a source category.”⁸ The regulations also provided that increases in hours of operation or production rate within operating design capacity are not modifications. 40 C.F.R. § 60.2(h) (1971) (App. Ex. 4), 36 Fed. Reg. 24,876, 24,877 (Dec. 23, 1971) (App. Ex. 5). All these were activities that existing facilities were expected to do under the assumptions made in regulating them under the existing source ambient program.

⁶ See S. Rep. No. 91-1196, Comm. on Public Works, 91st Cong. 2nd Sess. (1970), *reprinted in* Legal Compilation: Statutes and Legislative History, Environmental Protection Agency (Jan. 1973) at 15-16 (App. Ex. 3).

⁷ 40 C.F.R. § 60.2(h) (1971) (App. Ex. 4); 36 Fed. Reg. 24,876, 24,877 (Dec. 23, 1971) (App. Ex. 5).

⁸ 40 C.F.R. § 60.14(e)(1) (1975) (App. Ex. 6); 40 Fed. Reg. 58,416, 58,419 (Dec. 16, 1975) (App. Ex. 7) (emphasis added). “Source category” has a specific meaning under NSPS. Congress required EPA to publish and periodically revise a list of industry source categories that the agency finds contribute significantly to air pollution. CAA § 111(b)(1)(A), 42 U.S.C. § 7411(b)(1)(A). Under this authority, EPA has established standards of performance for 68 different categories of sources, including various types of steam generating units. See in particular NSPS at CFR at Part 60, Subparts D, Da, Db, Dc (40 C.F.R. §§ 60.40 to 60.48c) for regulations covering steam generating units.

In 1975, EPA revised the NSPS regulations to clarify that the modification definition applied to an increase “in emission rate,” “expressed as kg/hr.” 40 Fed. Reg. 58,416, 58,419 (Dec. 16, 1975) (App. Ex. 7). EPA stated that this unit of measurement would clarify that the modification rule would be sensitive to “increased production capacity and to overall increases in total emissions to the atmosphere” (*i.e.*, to new capacity to emit pollution), while “automatically allow[ing] increases in operating hours as intended by one of the existing exemptions under 40 C.F.R. § 60.2(h).” 39 Fed. Reg. 36,946-47 (Oct. 15, 1974) (App. Ex. 8). EPA thus explained that the “hours of operation/production rate exclusion,” by definition, requires an increase in the maximum *hourly* emissions rate for a modification to occur.

The NSPS regulations were never intended to regulate existing emissions capacity (which was already assessed and regulated by the SIPs). As EPA’s Administrator stated, “[t]here is nothing that EPA can do to prevent a powerplant which had previously been emitting at a level well below its SIP limit from increasing its emissions, as long as it remains below its legally sanctioned ceiling.”⁹ Walter Barber, the Director of EPA’s Office of Air Quality Planning and Standards (OAQPS) in the late 1970s, confirms:

During my tenure as Director of OAQPS, to trigger NSPS, the activity at the source had to be sufficient to increase the capacity of a source to emit air pollutants or to emit a new pollutant not previously emitted. If the source were engaged in activities necessary to maintain the plant’s current operating conditions or return itself to its original operating capacity, OAQPS did not consider those activities to trigger NSPS.¹⁰

2. The NSR programs adopted the NSPS concept of “modification.”

- a) Congress adopted the NSPS concept of “modification” into the NSR program Enacted in the 1977 Clean Air Act Amendments.

In 1977, Congress further amended the CAA by enacting two more new source programs: the Prevention of Significant Deterioration (PSD) and Non-Attainment New Source Review (NNSR) programs.¹¹ Basically, the 1977 Amendments codified a then-existing 1974 regulatory PSD program.¹²

⁹ Letter from Adm’r Thomas to Congressman Dingell (May 9, 1986), at response to Question 2.b (App. Ex. 9).

¹⁰ Report of Walter C. Barber (“Barber Report”) at 8 (App. Ex. 10) (emphasis added); *see* Declaration of Walter C. Barber, authenticating and verifying Report (App. Ex. 11).

¹¹ PSD applies to all new emissions capacity in areas meeting the NAAQS (attainment areas), while NNSR applies to all new emissions capacity in areas not meeting the NAAQS (non-attainment areas). Here, EPA has alleged
(continued...)

In codifying the 1974 regulatory PSD program into the Act in 1977, Congress specifically considered the various provisions of the regulatory program and decided to “tighten[]” some of them. *See Alabama Power*, 636 F.2d at 349-50. Congress did not, however, change the applicability provisions of these regulations (which were identical to NSPS): it simply incorporated the NSPS definition of modification into the NSR definition of modification.¹³

Stressing the link between the NSPS and NSR programs, the House-Senate Conference Committee explained that Congress intended “to conform” the NSR definition of “modification” to the “usage in other parts of the Act.” 123 Cong. Rec. H11956 (daily ed.) (Nov. 1, 1977) (App. Ex. 13). The Committee’s reference to “usage,” EPA confirmed, refers to the meaning of modification implemented by EPA over the previous seven years under NSPS and the 1974 regulatory PSD programs.¹⁴

The reenactment and adoption by Congress of the NSPS and 1974 PSD meaning and usage of modification into NSR is significant because Congress explicitly considered prior rules in detail in

violations of PSD (not NNSR) because the areas of North Carolina and South Carolina where Duke’s plants operate were in attainment for all relevant pollutants during the periods of interest. In the remainder of this Memorandum, the NSPS, PSD, and NNSR program are collectively referred to as the “New Source programs.” The PSD and NNSR programs are collectively referred to as the “New Source Review programs” or “NSR programs” or simply “NSR.”

¹² Prior to Congress’ amending the Act to include NSR requirements, EPA -- prompted by a court-ordered preliminary injunction -- had promulgated rules adopting a PSD program. *See generally Alabama Power Co. v. Costle*, 636 F.2d 323, 346-49 (D.C. Cir. 1979) (describing the statutory and regulatory history of the PSD program). These rules, promulgated late in 1974 and still found today at 40 C.F.R. § 52.01(d), defined “modification” and “modified source” using terms essentially identical to those in the then-existing NSPS rules (discussed earlier). EPA stated that the “general definition of modified source” in its PSD rules was meant to be “consistent with the definition used in Part 60 [i.e., NSPS].” 39 Fed. Reg. 42,513 (Dec. 5, 1974) (App. Ex. 12).

¹³ CAA § 169(2)(c), 42 U.S.C. § 7479(2)(C) (PSD) (“The term ‘construction’ ... includes the modification (as defined in section 111(a) of this title [NSPS] of any source or facility.”); CAA § 171(4), 42 U.S.C. § 7501(4) (NNSR) (“The terms ‘modifications’ and ‘modified’ mean the same as the term ‘modification’ as used in section 7411(a)(4) [CAA § 111(a)(4), NSPS] of this title.”)

¹⁴ *See* 49 Fed. Reg. 43,211, 43,213 (1984) (App. Ex. 14) (“The phrase ‘usage in other parts of the Act’ most probably refers, not only to section 111(a)(4), but also to the EPA regulations implementing section 111 that were in effect at that time.”); *see also* 43 Fed. Reg. 26,380, 26,394 (1978) (App. Ex. 15) (“In adopting [§169(2)(C)], one of the November 1977 ‘technical and conforming amendments’ to the 1977 amendments, Congress said it was honoring the conference agreement by conforming the terminology to its use in section 111, the provision on [NSPS].”); memorandum of E. Reich, Director of DSSE, EPA, *et al.* to Allyn Davis, EPA Region VI, *et al.* (Apr. 21, 1983) (App. Ex. 16), at 2 (“The [CAA] provides in Section 169(1)(c) that for PSD purposes the term modification shall be defined as that term is defined in Section 111(a) of the Act relating to NSPS. EPA has interpreted this to mean that for PSD purposes Congress intended the term modification to include all exemptions included in the NSPS regulations promulgated under Section 111 of the Act prior to the date of enactment of Section 169.”).

enacting the Amendments and:

When a Congress that re-enacts a statute voices its approval of an administrative or other interpretation thereof, Congress is treated as having adopted that interpretation, and this Court is bound thereby.¹⁵

The doctrine of re-enactment “applies when Congress indicates not only an awareness of the administrative view, but also an affirmative step to ratify it.”¹⁶ Here, Congress defined modification under NSR programs by specific and direct reference to the NSPS meaning and usage.¹⁷ Indeed, the debates leading to passage of the 1977 amendments establish that Congress understood the limited reach of NSR, like NSPS, to previously operating sources.¹⁸

b) The 1980 NSR rules also incorporated the NSPS concept of “modification.”

The 1980 NSR regulations define major modification as “any physical [or operational] change ...

¹⁵ *United States v. Board of Comm'rs*, 435 U.S. 110, 134, 98 S. Ct. 965, 981 (1978); *see also* *FDIC v. Philadelphia Gear Corp.*, 476 U.S. 426, 437-38, 106 S. Ct. 1931, 1937-38 (1986); *United States v. Hermanos y Compania*, 209 U.S. 337, 339, 28 S. Ct. 532, 533 (1908).

¹⁶ *Isaacs v. Bowen*, 865 F.2d 468, 473 (2d Cir. 1989).

¹⁷ The original PSD legislation applied only to construction of entirely new “major emitting facilities,” not to “modifications.” Three months later, in a “technical and conforming” amendment, Congress added a definition of “construction” to the PSD program that incorporated by reference the “meaning and usage” of the NSPS definition of “modification.” *See* Cong. Rec. H11956 (daily ed.) (Nov. 1, 1977) (App. Ex. 13); *see* CAA §169(2)(C), 42 U.S.C. § 7479(2)(C).

¹⁸ Congressional debates focused almost exclusively on the application of the NSR programs to new sources. For instance, Senator Muskie, a bill sponsor, stated that the PSD provisions were intended to “apply only to new major emitting facilities and do not affect existing facilities or new facilities which are not specified as major by this bill or by subsequent EPA regulations.” S. Comm. Print, Debate on S. 252 (June 8, 1977), Comm. on Environment and Public Works, *reprinted in* Legislative History of the CAA Amendments of 1977, No. 95-16 (Aug. 1978) (hereinafter “1977 Legislative History” (App. Exs. 17-20)), Vol. 3 at 725; *see also* S. Rep. No. 95-127, Report to accompany S. 252 (May 10, 1977), Comm. on Environment and Public Works, *reprinted in* 1977 Legislative History, Vol. 3 at 1403; statements of Senator Randolph, S. Comm. Print, Debate on S. 252 (June 8, 1977), Comm. on Environment and Public Works, *reprinted in* 1977 Legislative History, Vol. 3 at 775 (“the nondeterioration section applies only to major new emission sources. It does not relate to sources already in existence.”). Similarly, the House Report on H.R. 6161 noted that “[n]o permits are required for existing sources, since they and their emissions’ capacity are ‘grandfathered’.” H. Rep. No. 95-294, Report to accompany H.R. 6161, (May 12, 1977), Comm. on Interstate and Foreign Commerce, *reprinted in* 1977 Legislative History, Vol. 4 at 2611 (emphasis added). Congress likewise anticipated that NSR provisions would result in only modest economic impacts on various industries, including the electric utility industry. Senator Muskie noted that the “projected capital investment for selected major industries through 1985 . . . required for pollution [sic] control [would be] modest.” S. Comm. Print, Debate on S. 3219 (July 26, 1976), Comm. on Environment and Public Works, *reprinted in* 1977 Legislative History, Vol. 6 at 4986. For the electric utility industry specifically, Senator Muskie agreed with “[a]n EPA study of costs of nondegradation policies [that] indicate[d] that the maximum energy penalty associated with the operation of pollution control equipment at new powerplants would be modest . . .” S. Comm. Print, Debate on S. 252 (June 8, 1977), Comm. on Env. and Public Works, *reprinted in* 1977 Legislative History, Vol. 3 at 731.

of a major stationary source that would result in a significant net emissions increase” in the source’s “actual emissions” of a regulated pollutant.¹⁹ Consistent with Congress’ reenactment of the NSPS provisions, the PSD and NNSR regulations defined modification not to include routine maintenance, repair, and replacement activities. *See* 40 C.F.R. § 51.166(b)(2)(iii)(a). To be consistent with the NSPS usage, the PSD and NNSR “routine” must, and was intended to, cover all projects that are “routine for a source category.”²⁰ In 1992, EPA reconfirmed this standard under the NSR programs when it stated that:

the determination of whether the repair or replacement of a particular item of equipment is “routine” under the NSR regulations, while made on a case-by-case basis, must be based on the evaluation of whether that type of equipment has been repaired or replaced by sources within the relevant industrial category.²¹

NSR therefore does not apply to maintenance, repair and replacement projects that are undertaken by sources “within” the electric utility industry source “category.”

Consistent with congressional intent, the 1980 NSR regulations regarding emissions also mirror the “meaning and usage” of modification under NSPS. Under the regulations, a physical or operational change must cause a “net emissions increase” for a modification to occur. The regulations then define a “net emissions increase” as a change in “actual emissions from a particular physical change or change in the method of operation at a stationary source.” 40 C.F.R. § 51.166(b)(3)(i)(a). Finally, the regulations

¹⁹ 40 C.F.R. §§ 51.166(b)(2)(i), (b)(3)(i) (1987) (a major modification requires a “significant net emissions increase,” and a “net emissions increase” is defined as an increase in “actual emissions”) (App. Ex. 21). “In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the unit actually emitted the pollutant during a two-year period which precedes the particular date and which is representative of normal source operation.” *Id.* § 51.166(b)(21)(ii). Because only the PSD program is at issue, except where specifically noted, citations for NSR are to the applicable PSD regulations. (The applicability provisions of the NNSR regulations, 40 C.F.R. § 51.165, are essentially identical to those under PSD.) The PSD regulations applicable here are those adopted in the state SIPs, as approved by EPA. North Carolina’s SIP incorporates by reference and South Carolina’s SIP is substantially similar to the regulations found at 40 C.F.R. § 51.166. The PSD program was originally promulgated as 40 C.F.R. § 51.24, and was redesignated as § 51.166 in the 1987 version of the C.F.R. All references in this brief to the 1980 PSD rules is to the 1987 version of the C.F.R., except where specifically otherwise noted.

²⁰ 40 C.F.R. § 60.14(e)(1) (1975) (App. Ex. 6); 40 Fed. Reg. 58,416, 58,419 (Dec. 16, 1975) (App. Ex. 7) (emphasis added). *See* Memo. from Reich, EPA, to Davis, EPA Region VI (Apr. 21, 1983) at 2 (App. Ex. 16) (“EPA has interpreted . . . that for PSD purposes Congress intended the term modification to include all exemptions included in the NSPS regulations promulgated under Section 111 of the Act prior to the date of enactment of [PSD].”).

²¹ 57 Fed. Reg. 32,314, 32,326 (July 21, 1992) (emphasis added). EPA specifically referred to “electric utilities” as a “source category.” *Id.* at 32,317.

state that a physical or operational change does not include certain activities, like increases in “hours of operation” or “production rate,” within existing permit limits. *See* 40 C.F.R. § 51.166(b)(2)(iii)(f).

Thus, under the plain language of the regulations, an increase in actual emissions from an existing unit must come from some factor other than an “increase in hours of operation” or “production rate” to count in calculating an emissions increase.²² NSR review is potentially triggered only by newly constructed capacity to emit air pollution; increases in the hours of operation or production rate (within permit limits) at existing capacity do not count. This is consistent with the NSPS usage of the term modification prior to 1977 (the maximum kg/hr emission rate comparison) incorporated legislatively by Congress into the PSD and NNSR programs.²³ NSR is triggered if the newly constructed capacity to emit air pollution results in a source-wide “net emissions increase” that is “significant” under the regulations.²⁴

3. Implementation of the PSD program by EPA and the states

- a) EPA’s contemporaneous interpretation of the definition of “modification” in PSD regulations in the early 1980s is consonant with the NSPS definition of “modification.”

Shortly after the 1980 PSD rules were finalized, EPA confirmed that the definition of “net emissions increase” meant just what it said. In 1981, EPA confirmed that “PSD applicability [at a previously operating source] is determined by evaluating any change in [hourly] emissions rates caused by” the physical or operation change being examined.²⁵ Absent a change in the per hour emission rate,

²² *Cf.* 45 Fed. Reg. 52,676, 52,698 (Aug. 7, 1980) (App. Ex. 22) (“The first step in determining whether a ‘net emissions increase’ would occur is to determine whether the physical or operational change in question would itself result in an increase in ‘actual emissions.’ If it would not, then it could not result in a ‘net emissions increase.’”).

²³ This is also consistent with the approach to calculating an emissions increase under the pre-1980 PSD program. In promulgating the 1980 PSD and NNSR rules, EPA never claimed that it intended to change radically the scope of the existing NSR modification rule. The plain language of the 1980 rules belies any such claim.

²⁴ *See* 40 C.F.R. § 51.166(b)(2)(i). The maximum kg/hr emission rate can increase, thus triggering NSPS, without triggering NSR if the source avoids a significant net emissions increase in tons per year by making contemporaneous decreases or by accepting operational limitations (e.g., a limit on hours of operation). *See id.* § 51.166(b)(3).

²⁵ Letter of E. Reich, EPA, to A. Gill, General Electric (June 24, 1981) (App. Ex. 23). Reich said the same thing about increased hours of operation not being a modification in a PSD applicability determination dated January 22, 1981, to C. Whitmore, EPA Region VII, regarding changes at Cargill Inc.’s Eddyville, Iowa plant. (App. Ex. 24). In both of these cases, physical and operational changes were being made to the units; these were not mere increases in the hours of operation absent such changes.

EPA concluded, actual emissions “could increase only if there is an increase in the production rate or hours of operation, both of which are specifically exempt from PSD review.”²⁶ Therefore, the source’s production rate and hours of operation are assumed to be constant for purposes of calculating a “net emission increase,” under the “actual-to-actual” test required by the PSD and NNSR regulations.²⁷

Indeed, as Walter C. Barber, the former Director of EPA’s OAQPS, explains:

OAQPS carried over into the PSD and NNSR regulations the general mindset regarding the magnitude and scale needed to trigger a modification developed under the NSPS program and the specific NSPS definitional terms of ‘modification,’ ‘routine maintenance repair and replacement’ and ‘increased hours of operation’ and our interpretations thereof. Furthermore, as used in the PSD and NNSR programs, OAQPS gave these terms the same meaning and intent as in the NSPS program.²⁸

- b) North and South Carolina imported this definition of “modification,” based on the NSPS definition, into their SIP PSD regulations.

Shortly after the promulgation of the 1980 PSD rules and these early applications by EPA, in 1982, both North Carolina and South Carolina adopted the 1980 rules into their SIPs.²⁹ Since 1982, the state PSD regulations (incorporating 40 C.F.R. § 51.166), not the direct federal regulations found at § 52.21, are applicable in North and South Carolina. This is significant because, under the applicable rules, the state permitting agencies (not EPA) are the regulators that enforce PSD. It is telling indeed that EPA invited the state of North Carolina to join its suit against Duke, but the state declined. *Smith Dep.* (12/11/01) at 173-74 (App. Ex. 25).

- c) In *WEPCo*, the court upheld EPA’s determination that an unprecedented project at a utility plant was not routine maintenance, repair and replacement, but it set aside EPA’s so-called “actual-to-potential” emissions test.

Only once in the 30-year history of the new source programs preceding EPA’s new “initiative” against coal-fired utilities, did EPA make a formal determination that a power plant repair and

²⁶ Letter from E. Reich, EPA, to E. Gill, General Electric (App. Ex. 23) (*citing* 40 C.F.R. § 52.21(b)(2)(iii)(f)).

²⁷ See 40 C.F.R. § 51.166(b)(2)(iii)(f). The language of § 51.166(b)(2)(iii)(f) is identical to § 52.21(b)(2)(iii)(f), which was cited by Reich in the GE Letter.

²⁸ Barber Report at 8 (App. Ex. 10).

²⁹ See 47 Fed. Reg. 7836, 7837 (Feb. 23, 1982) (N.C.) (App. Ex. 26); 47 Fed. Reg. 6017 (Feb. 10, 1982) (S.C.) (App. Ex. 27).

replacement project would trigger PSD and NSPS.³⁰ In 1988, Wisconsin Electric Power Company (WEPCo) proposed a “renovation” project at its Port Washington Plant. This project exemplified the unusual circumstances under which an existing plant could become “modified.” The WEPCo plant had operated over 10 years at a maximum achievable capacity significantly less than its original design capacity rating of 400 megawatts (MW).³¹ EPA found the replacements that WEPCo proposed to increase “[p]lantwide capacity ... about 40 percent above current levels to 400 megawatts”³² to be “highly unusual, if not unprecedented.”³³ Most notably, WEPCo proposed to replace the steam drums and plate-type air heaters at the units. EPA “found no examples of steam drum replacement at aged electric generating facilities,” and WEPCo was unable to provide examples of any replacement of plate-type air heaters similar to WEPCo’s.³⁴ Accordingly, given both the magnitude and uniqueness of these replacements,³⁵ EPA determined that WEPCo’s project was not routine maintenance, repair and replacement. The Seventh Circuit upheld that determination. See *Wisconsin Elec. Power Co. v. Reilly*, 893 F.2d 901 (7th Cir. 1990) (“*WEPCo*”).

In finding an NSPS emissions increase, EPA reasoned that to increase the capacity of some WEPCo units in a way that increases their maximum achievable hourly emissions rates triggered NSPS. Rather than applying the actual-to-actual test of the 1980 PSD rules, which would only have considered this increase in emission rate at certain WEPCo units, EPA found a PSD emissions increase using the so-called “actual-to-potential” test for all units. In other words, EPA compared the actual annual emissions

³⁰ See Wisconsin Elec. Power Co. NSR Applicability Determination, Memorandum from D. Clay, EPA, to D. Kee, EPA Region V (Sept. 9, 1988) (the “Original WEPCo Determination”) (App. Ex. 28); Letter from L. Thomas, EPA Administrator, to J. Boston, WEPCo (Oct. 14, 1988) (the “Final WEPCo Determination”) (App. Ex. 29); Letter from D. Clay, EPA, to J. Boston, WEPCo (Feb. 15, 1989) (the “Revised WEPCo Determination”) (App. Ex. 30).

³¹ See Memorandum from D. Kee, EPA Region V, to G. Emison, EPA (Mar. 25, 1988) (App. Ex. 31). According to this memorandum, even several years before the proposed project, the WEPCo units had been formally derated from their full capacity of 80 MW each to operating capacities ranging from 49 MW to 75 MW.

³² *Id.* at 2.

³³ Original WEPCo Determination at 4 (App. Ex. 28).

³⁴ Final WEPCo Determination at 4 (App. Ex. 29); Revised WEPCo Determination at 7 (App. Ex. 30).

³⁵ See Stevenson 306b Dep. (4/10/02) at 151-52 (App. Ex. 32); *id.* at 79 (“[I]n WEPCO, the steam drum replacement is exceptional and normally is not done.”).

of all units during a pre-repair representative period to the units' theoretical, total annual emissions, derived by multiplying the units' maximum emissions rates by a full year, or 8,760 hours.

The Seventh Circuit upheld EPA's NSPS finding, but reversed EPA's PSD determination. Under the plain language of the regulations, the "potential to emit" concept (which leads to the actual to potential test) applies only to a "unit which has not begun normal operations." See 40 C.F.R. § 51.166(b)(21)(iv). EPA contended that any non-routine change is a modification that transforms a unit into one that "has not begun normal operations." The Seventh Circuit rejected EPA's circular reasoning, stating: "in order to demonstrate that the [WEPCo] like-kind replacement project constitutes a modification," EPA "applies the potential to emit concept (to show an increase in emissions)," and, "in order to apply the potential to emit concept to like-kind replacement, the EPA assumes that the plant is a 'modified' unit."³⁶ *WEPCo*, 893 F.2d at 917 (emphasis added). The court concluded it could not "defer to agency interpretations that, as applied here, appear to assume what they seek to prove." *Id.*

On remand, the *WEPCo* court ordered EPA to determine "whether the renovated plant would cause a significant net emissions increase if it were operated under present hours and conditions," *id.* at 918 n.14 (emphasis added) – i.e., to calculate post-project emissions on the basis of the *restored* hourly emissions rate of the repaired plant under the actual hours and conditions of operation during the baseline period. By holding pre- and post-project hours and production rate constant, any "net emissions increase" would be due to an increase in the units' hourly rates, not a result of more hours of operation. Thus, the court confirmed the NSR rules' actual-to-actual emissions test promulgated in 1980 and applied by EPA in 1981.³⁷

³⁶ The court described WEPCo's project, albeit massive and unprecedented, as involving "like-kind replacement," or an activity that "does not 'change or alter' the design or nature of the facility. Rather, it merely allows the facility to operate again as it had before the specific equipment deteriorated." *Id.* at 908; 57 Fed. Reg. at 32,317 (acknowledging the court's description).

³⁷ After *WEPCo*, EPA formally abandoned its re-interpretation of the rule that the Seventh Circuit had declared illegal, explaining that "[a]t least for changes that are 'like kind replacements,' 'normal operations' have begun, and the actual-to-potential test is impermissible." 57 Fed. Reg. at 32,317 (emphasis added). Yet, in this case, EPA has returned to the discredited interpretation which it said it abandoned more than a decade ago. See *infra* Part V.A.1.

- d) EPA ignored the court's remand instructions in the WEPCo remand determination.

In the WEPCo remand determination, EPA was precluded from applying the actual-to-potential test to WEPCo's project, however massive, because those units had "begun normal operations."³⁸ But EPA refused to follow the court's remand instructions -- that EPA determine on the basis of "present hours and conditions" whether WEPCo's project would result in an annual emissions increase -- summarily dismissing the court's instructions as "incorrect."³⁹ Instead, with no reference to the regulatory language whatsoever, EPA devised an emissions calculation methodology that compared the units' representative baseline annual emissions (i.e., pre-project emissions) to their "estimated future actual emissions." Remand WEPCo Determination at 7-8 (App. Ex. 33).

Two years later, in the so-called "WEPCo Rule," EPA added this new "actual-to-projected" emissions increase methodology to the regulations, allowing utilities to utilize it even in situations where a project increases an existing unit's maximum hourly emissions rate.⁴⁰ Significantly, EPA did not change the "base" 1980 rules governing emissions increase that provide an actual-to-actual test for existing units, and the actual-to-potential test only for units that have not begun normal operations.

- e) EPA's public pronouncements confirmed the established understanding that common repair or replacement of components on a coal-fired electric utility unit which did not increase its emissions capacity does not trigger NSR.

³⁸ Letter from W. Rosenberg, EPA, to J. Boston, WEPCo (Jun. 8, 1990) (The "Remand WEPCo Determination") (App. Ex. 33).

³⁹ *Id.* at 6. EPA officials dealing with WEPCo and NSR did not, however, find this interpretation of the court's instructions "incorrect." John Calcagni, Director of the Air Quality Management Division at OAQPS, of which EPA's New Source Review Section was a part, recognized that the effect of the WEPCo court's remand instructions for calculating emissions increases by holding hours of operation constant was potentially to remove projections of future utilization from an emissions calculation for like-kind replacements. EPA ignored that interpretation, however: "[y]ou don't turn your program upside down because of a footnote in an opinion." Calcagni Dep. (10/30/02) at 226 (App. Ex. 34). Although EPA asked the Seventh Circuit for an extension of time for filing a motion for clarification or reconsideration of the court's instructions, *see* Foote Affidavit in *WEPCo* (App. Ex. 35), it never filed such a motion, choosing instead simply to ignore the court's clear instructions.

⁴⁰ *See* 57 Fed. Reg. at 32,325 (explaining that the actual-to-projected-actual test may be applied under the WEPCo Rule to *any* change at a utility unit, except the construction of a "greenfield" unit or the replacement of an existing unit). The regulatory provisions added in the WEPCo Rule are found at 40 C.F.R. §§ 51.166(b)(21)(v) & (b)(32) (1993). North Carolina adopted the WEPCo Rule into its SIP in 1995. *See* 60 Fed. Reg. 51,923 (Oct. 4, 1995).

EPA's Administrator stated in 1980 that the New Source provisions had very limited application to existing coal-fired power plants.⁴¹ EPA's Assistant Administrator for Air and Radiation agreed that the definition of "modification" did not cover "activities at a plant which tend to extend the useful life of that plant or tend to increase the total emissions generated over the total life of that plant."⁴² In 1987, EPA's Administrator told Congress that the New Source programs did not require the retrofit of pollution controls on pre-NSPS (i.e., existing) coal-fired power plants and that EPA opposed proposed legislation that would mandate such unit-by-unit controls.⁴³

In the 1980s and 1990s, EPA assumed that the New Source programs would apply to few, if any, pre-NSPS coal-fired power plants when analyzing the economic impact of environmental legislative and regulatory proposals on the coal and utility industries, including proposals for addressing acid rain.⁴⁴ EPA-directed studies assumed that existing coal-fired power plants would continue to operate at original capacity for 55 to 65 years on average, being "refurbished" around age 30, without being subject to New Source programs.⁴⁵ These assumptions are consistent with both Congress's intent not to require universal retrofitting of pre-NSPS coal-fired power plants and the plain language of EPA's New Source regulations.

After the WEPCo determinations, EPA reaffirmed that repair and replacement projects that are common within the electric utilities industry – including those that might be characterized as "life extension" projects – would not trigger NSR. For example, a 1990 Government Accounting Office (GAO) report commissioned by Congress concluded that "EPA officials do not consider WEPCo's

⁴¹ "Proceedings of the Acid Rain Conference, April 8-9, 1980," prepared by EPA's Office of Air Quality Planning and Standards (Aug. 1980) (hereinafter "Acid Rain Conference"), at 6 (App. Ex. 36).

⁴² *Id.* at 192 (App. Ex. 36).

⁴³ See Hearing Before the Subcommittee on Environmental Protection of the Committee on Environment and Public Works, United States Senate, 100th Congress, 1st Session, To Hear from Hon. Lee Thomas, Administrator, Environmental Protection Agency on the Subject of Acid Rain and Nonattainment Issues, April 22, 1987 (U.S. Government Printing Office, 1987) (hereinafter referred to as "Thomas Testimony") at 26-27 (App. Ex. 37).

⁴⁴ Report of Kenneth Schweers ("Schweers Report") at 2, 6 (App. Ex. 38); see Declaration of Kenneth Schweers, authenticating and verifying Report (also attached as App. Ex. 39).

⁴⁵ See "1989 EPA Base Case Forecasts" (ICF for EPA), Appendix C (App. Ex. 40); Letter from K. Schweers, ICF, to R. Beck, Edison Elec. Institute (July 26, 1989) (App. Ex. 41). See also Schweers Report at 8-9 (App. Ex. 38).

project typical of most utility life extension projects, and they expect that the ruling will not significantly affect utilities' decisions to undertake power plant life extension projects."⁴⁶ Thus, EPA expected, as lawful conduct, the conduct which it now seeks to punish as unlawful in this "initiative."

EPA reaffirmed throughout the 1990s that maintenance, repair, and replacement projects common within the electric utilities industry would not trigger the modification rule. In 1991, shortly after Congress amended the CAA to add the Acid Rain cap-and-trade program, EPA told Congress that most power plant projects and activities would not trigger NSR. EPA reconfirmed that "most utility [life extension] projects will not be similar to the WEPCo situation," and that "the [WEPCo] ruling is not expected to significantly affect power plant life extension projects."⁴⁷ In 1995, EPA's Assistant Administrator for Air and Radiation advised the electric utilities industry that "EPA believes that the routine maintenance exclusion already included in the existing NSR regulations . . . has the effect of excluding 'routine restorations'" from the requirements of the NSR programs.⁴⁸

4. EPA Reverses Course In 1999.

⁴⁶ "Electric Supply: Older Plants' Impact on Reliability and Air Quality," GAO Report to the Chairman, Subcomm. on Energy and Commerce, U.S. House of Reps., Pub. No. GAO/RCED-90-200 (Sept. 1990) ("GAO 1990 Report") (App. Ex. 42) at 29; *id.* at 31 ("Lending evidence to the officials' statements, EPA's 1989 emission forecast assumed that the WEPCo decision would not result in a significant number of additional power plants having to comply with the NSPS and the PSD program requirements."); Tiber Dep. (5/15/02) at 14-17, 19, 37, 39-42 (App. Ex. 43).

⁴⁷ See Letter from W. Rosenberg, EPA, to Congressman J. Dingell, (June 19, 1991) (App. Ex. 44) at 5 & 6 (emphasis in original). This letter is consistent with one sent two years earlier by the EPA Administrator to Congressman Dingell, stating that not all "renovation[s]" and "life extension[s]" "qualify as . . . a modification[.]" See Letter from W. Reilly, EPA Administrator, to Congressman J. Dingell (Apr. 19, 1989) at 2 (App. Ex. 45).

⁴⁸ See May 30, 1995, EPA "Response to Issues Raised by Industry on Clean Air Act Implementation Reform," attached to Letter from M. Nichols, EPA, to W. Lewis (May 31, 1995) at 19 (App. Ex. 46). EPA similarly understood the NSPS program to have limited application to existing coal-fired power plants. This is significant to both NSPS and NSR, because Congress defined "construction" and "modification" under NSR to include NSPS modifications, and because a unit that becomes subject to BACT requirements under PSD also would have to meet applicable NSPS requirements. See CAA § 169(3), 42 U.S.C. § 7419(3). ICF's 1989 forecasts were based on EPA's assumption "that the recent WEPCo decision would not result in any significant number of powerplants having to comply with NSPS upon refurbishment." See Base Case Forecasts at 29 (App. Ex. 40). As recently as 1997, in a *Federal Register* notice proposing to revise the utility NOx NSPS, EPA stated again that "[t]o date, no existing utility unit has become subject to [NSPS] under either the modification or reconstruction provision." 62 Fed. Reg. 36,948, 36,957 (July 9, 1997). EPA continued, "[f]ew, if any, changes typically made to existing steam generating units would be expected to bring such steam generating units under the proposed NOx revisions." *Id.*

On November 3, 1999, in an action it described as “unprecedented,”⁴⁹ EPA reversed course. It filed seven lawsuits against midwestern and southern coal-fired utilities and an administrative action against the Tennessee Valley Authority.⁵⁰ This suit against Duke was filed a year later, in December 2000, as part of the same “enforcement initiative.” In the enforcement initiative, EPA alleges near universal non-compliance with NSR – claiming that (a) 549 maintenance, repair and replacement projects, (b) completed at 148 electrical generating units, (c) at 56 already operating coal-fired power plants, (d) over the past twenty years, violated NSR requirements.⁵¹ EPA now asserts that the owners of as many as five hundred coal-fired electric generating units in the United States are defendants or potential defendants in NSR lawsuits like this one.⁵²

What is truly “unprecedented” here is that EPA is attempting to change NSR, through retroactive enforcement of new interpretations via litigation, from a program that both Congress and EPA intended would not apply to existing facilities that operate within their SIP-permitted capacity, to a program that is triggered early and often and that covers virtually every existing power plant in the United States. Through this litigation, EPA seeks to impose what Congress repeatedly decided not to do: require universal retrofitting of existing coal-fired power plants. This, EPA has no authority to do. Even if authority could be found, at a minimum, EPA would be required first to undertake notice-and-comment rulemaking to effectuate such far-reaching changes in the law.

III. STATEMENT OF FACTS

A. The Duke Power Plants Are Existing Sources With Established Operations.

Duke has provided electricity to the Carolinas since the early 1900s. Duke’s system currently

⁴⁹ See, e.g., “U.S. Expands Clean Air Act Lawsuits Against Electric Utilities,” EPA Headquarters Press Release (Mar. 1, 2000) (available at <http://yosemite.epa.gov/opa/admpress.nsf>) (App. Ex. 47).

⁵⁰ See App. Exs. 48-55 (complaints filed by United States).

⁵¹ See App. Ex. 56 (summary of projects alleged to violate NSR in all actions).

⁵² Plaintiffs’ Memorandum in Support of a Request for Ruling on Inadmissibility Pursuant to Fed. R. Evid. 807 or, in the Alternative, Motion to Compel, filed in *U.S. v. Ohio Edison*, No. 2:99-CV-1181 (S.D. Ohio) (Aug. 16, 2002), at 3 n.3 (defendants’ boiler census had 495 respondents) and at 29 (“most, if not all, Census respondents are either defendants in this or related Clean Air Act cases, or potential defendants”) (excerpts at App. Ex. 57).

includes nuclear, hydroelectric, gas-fired combustion turbine, and coal-fired generating plants. Duke has 30 coal-fired electric generating units at 8 plants located throughout North Carolina and South Carolina.

Virtually the entire fleet of Duke's coal-fired generating units is at issue in this case. These units have long-established operations, having been placed in service between 1940 and 1975. They range in net rated generating capacities from 38 MW (for some of the oldest units) to 1120 MW (for the newest units). Declaration of Rickey J. Deese ("Deese Decl.") ¶ 3 (App. Ex. 58). The boilers on these units are large, building-like structures -- ranging from 6 to 20 stories high -- that contain thousands of steel tubes in which water is heated to superheated steam with temperatures in excess of 900° F. Utility boilers typically include collections of tube assemblies, including the economizer tubes, where water is initially heated; the furnace waterwall tubes, where the water evaporates to steam; the superheater tubes, where the temperature of the steam is raised just before the steam exits the boiler and reaches the turbine; and the reheater tubes, where steam from the turbine is reheated and returned to the turbine. *Id.* ¶ 4.⁵³ The furnace waterwall tubes form the walls of the boilers, and provide an envelope for coal combustion while also absorbing heat.

The thousands of steel tubes and assemblies inside the boilers are called pressurized parts. They are built to withstand extremely high steam pressures and temperatures inside the tubes, as well as hot gases and combustion byproducts passing outside the tubes. Due to corrosion, erosion, fatigue, pressure, and temperature, the tubes and assemblies must be maintained, repaired, and replaced to assure safe and reliable operations that will satisfy the utility's "duty to serve."⁵⁴ Otherwise, tubes could fail and boilers could rupture, causing bodily harm to plant workers and disrupting service. *Id.*

The Duke boilers create steam by burning coal. Coal is ground to fine powder in pulverizers and moves through pipes to burners along the boiler walls. When the ground coal is ignited in the furnace,

⁵³ This brief provides a general description of most Duke boilers. Due to the time span during which Duke's boilers were designed and built, there are some differences between them, including that the boilers on the older and smaller units do not have reheaters and on occasion also do not have an economizer. Deese Decl. ¶ 7 (App. Ex. 58).

⁵⁴ See, e.g., N.C. Gen. Stat. § 62-2 (duty to serve); See Deese Decl. ¶¶ 8-9 (App. Ex. 58).

“flue gas” is created with temperatures of up to 3000° F. The flue gas, which contains sulfur dioxide (“SO₂”), ash particles or particulate matter (“PM”), and nitrogen oxides (“NO_x”), passes around the tubes and tube assemblies. Water in the tubes becomes steam, which is then heated to superheated steam. Once the flue gas passes through the boiler, it is treated for emissions and exits through a stack. *Id.* ¶ 5.

The superheated steam then enters the turbines; there it spins the turbine rotors, which are connected to a generator. The generator transforms the mechanical energy into electric energy. The turbines typically have a high pressure section, an intermediate pressure section, and a low pressure section. Steam is first used in the high pressure section. The steam exiting the high pressure section is returned to the boiler, where it enters the reheater tube assembly and is reheated.⁵⁵ The reheated steam is returned to the intermediate and then to the low-pressure sections of the turbine. After the steam completes its journey through the turbine, it is converted to water in condensers and pumped through feedwater heaters back to the economizer, where it begins the entire steam cycle process again. *Id.* ¶ 6.

B. The CAA and State Law Heavily Regulate Air Emissions At Duke’s Plants.

Duke’s existing plants’ emissions are extensively regulated at costs of hundreds of millions of dollars under federal and state programs. The North Carolina SIP sets specific SO₂, NO_x, and PM emission limits expressed in pounds per million Btu heat input (lb/mmBtu) to the boiler for each Duke unit in North Carolina. The South Carolina SIP sets similar SO₂ and PM limits for Duke’s Lee Steam Station. Duke operates its plants in compliance with two sets of permits: state permits (which incorporate the SIP limits) and Acid Rain Program permits issued by EPA. Declaration of Kris Knudsen (“Knudsen Decl.”) ¶¶ 2-3 (App. Ex. 59). These permits do not restrict the number of hours the boilers can operate or the amount of electricity the units can generate. *Id.* ¶ 4. There is no claim in this case of any violation of any emission limit or other term of Duke’s operating or Acid Rain Program permits.

In addition to regulating SO₂ emissions from utility boilers in a cap-and-trade program, the Acid

⁵⁵ Duke’s smallest units, Buck 3 and 4 and Cliffside 1-4 do not have reheat cycles. Marshall Units 3 and 4 have a dual reheat cycle. Deese Decl. ¶ 7 (App. Ex. 58).

Rain Program also requires existing utility boilers to meet certain NOx emissions limitations. To comply with these requirements, starting in about 1994 and continuing throughout the 1990s, Duke installed NOx controls called “Low-NOx burners” on its existing coal-fired units, thereby lowering their NOx emissions rates to 0.5-0.68 lbs/mmBtu for the two Belews Creek units and less than 0.45 lbs/mmBtu for all other units. *Id.* ¶ 8. Duke is also subject to the so-called NOx SIP Call, under which several states in the eastern half of the United States were required to amend their SIPs for NOx to establish a cap-and-trade NOx control system. The NOx SIP Call essentially requires utilities in these states to control, during the “ozone season” (May-September), the total NOx emissions from their existing and new boilers alike to achieve an overall average level of control of 0.15 lbs/mmBtu, which is currently equivalent to “LAER” under the CAA.⁵⁶ To comply with the NOx SIP Call by 2004, Duke is currently installing additional NOx controls at many of its units. *Id.* ¶ 9.

Finally, in 2002, North Carolina, where all but one of Duke’s coal-fired plants are located, enacted one of the nation’s most stringent air emissions control laws. This new state law requires greater control of utility SO₂ and NOx emissions than do the current federal requirements.⁵⁷ North Carolina’s law establishes a system emissions cap for the major utility systems in the state. Rather than mandating unit-by-unit controls, it thus allows Duke to install controls where it makes most technical and economic sense to reduce overall emissions (similar to a cap-and-trade program). Duke’s program to meet the new state law will involve the installation of additional NOx controls on 24 units and SO₂ controls on 12 units (covering more than 70% of its coal-fired generation), at a cost of about \$1.5 billion. *Id.* ¶¶ 10-11.

C. Duke’s Projects Involved Common Repair and Replacement of Components and Did not Increase the Units’ Emissions Rates.

EPA has sued Duke for 29 projects undertaken at 25 Duke units over the past two decades. The

⁵⁶ Biewald Dep. (11/20/02) at 262-64 (App. Ex. 60). LAER refers to the “lowest achievable emissions rate” for a particular pollutant. See CAA § 171(3), 42 U.S.C. § 7501(3). This is the most stringent level of control (more stringent than BACT), applicable under NNSR to areas that are in non-attainment of the NAAQS. CAA § 173(a)(2); 42 U.S.C. § 7503(2).

⁵⁷ N.C. Gen. Stat. § 143-215.107D. The NOx control requirements of the NC law apply year-round, not just during the ozone season.

vast majority of these projects included the replacement of one or more of four sets of boiler tube assemblies -- economizers, portions of waterwalls, superheaters, and reheaters. These replacements were necessary for the continued safe and reliable operation of the units. As EPA's proffered boiler expert admits, such boiler component replacements are common in the industry because these components periodically fail due to the harsh conditions inside the boilers.⁵⁸ When pressurized part failures result in an unscheduled shutdown known as a "forced outage," they must be remedied, either through patching or replacement, in order to return the unit to operation. Damaged tubes and assemblies are also patched or replaced during planned outages to keep the unit running safely and to avoid future forced outages.⁵⁹ Some of the projects also included repair and replacement work on turbines (such as "turbine overhauls" and steam path replacements), condensers and feedwater heaters, and this work was "undertaken to address common inefficiencies or root cause problems that inevitably arise from normal operation of the unit ... [and] was common in the [utility] industry."⁶⁰ All of the replacement parts were like-kind replacements. As EPA's proffered boiler expert admits, they were of the same type and performed the same function as the old parts.⁶¹ As EPA's proffered emissions calculations expert admits, EPA has no evidence that the replacements caused the hourly emissions rates of the units to increase.⁶²

Sixteen of the projects named in the Complaint were undertaken during regularly scheduled,

⁵⁸ Koppe Dep. (12/4/02) at 63 (App. Ex. 61) ("Q. can you say that replacing one or more major sections of the boiler is an activity that is common in the electric utility industry over those 20 to 25 years? A. If common means that some significant number of units have done such replacements at some time in their lives, then it is common."); Report of William H. Tuppeny, Jr. ("Tuppeny Report") at 93 (App. Ex. 62); Declaration of William H. Tuppeny, Jr., authenticating and verifying Report (App. Ex. 63).

⁵⁹ Tuppeny Report at 92 (App. Ex. 62).

⁶⁰ Report of Michael R.F. Bishop ("Bishop Report") at 41-42 (App. Ex. 64); Declaration of Michael R.F. Bishop, authenticating and verifying Report (App. Ex. 65).

⁶¹ Koppe Dep. (12/5/02) at 263 (App. Ex. 61).

⁶² Sahu Dep. (11/25/02) at 22-25 (App. Ex. 66) (admitting that he did not base any of his calculations on an increase in maximum emissions rates). *See also* Tuppeny Report, *passim* (App. Ex. 62); Bishop Report, *passim* (App. Ex. 64); Report of Frank C. Graves ("Graves Report") at 8 (App. Ex. 67); Declaration of Frank C. Graves, authenticating and verifying Report (App. Ex. 68). *See also* Declaration of William B. Kinsey ("Kinsey Decl.") ¶ 10 (App. Ex. 69). EPA listed Mr. Kinsey as one of its witness two days before the close of discovery. *See* Email of Konschnik, DOJ, to Cottingham, Hunton & Williams (12/11/02) (App. Ex. 70).

planned turbine outages.⁶³ During a planned outage, maintenance, repair, and replacement tasks are performed inside the unit that cannot be performed during operation. Regularly scheduled turbine outages occur at a unit every 48 to 84 months depending on the particular unit's condition as well as the overall requirements of the Duke system. The outages typically are scheduled for spring or fall when electricity demand is relatively lower. Such outages last from several weeks to months in duration. Deese Decl. ¶ 10 (App. Ex. 58).

The other thirteen projects named in the Complaint were undertaken during periods of extended cold shutdown (ECS).⁶⁴ In the early to mid 1970s, Duke increased its system generating capacity by adding about 2200 MW of coal-fired capacity (Belews Creek units 1 & 2) and about 2600 MW of nuclear capacity (Oconee units 1, 2, & 3). During the 1981-1986 period, Duke added four more nuclear units (McGuire units 1 & 2 and Catawba units 1 & 2) totaling about 4800 MW. In the early 1980s, therefore, the new units led to less use of Duke's smaller units, which began spending relatively long periods of time in "reserve shutdown." Accordingly, starting in 1984, Duke placed 15 units, with aggregate name plate capacity of about 1440 MW, into ECS. Tuppeny Report at 13 (App. Ex. 62). Duke made definitive plans for preserving and conditioning these units while in ECS so that they could be returned to service, and Duke always intended to return them to service when demand dictated. Knudsen Decl. ¶ 5 (App. Ex. 59); *see also* Kinsey Decl. ¶ 6 (App. Ex. 69).

During ECS, Duke developed an enhanced maintenance program, which it called initially the "Preventive Maintenance Program" or PMP, and later the "Plant Modernization Program."⁶⁵ Duke inspected the units in ECS and developed plans and funding requests to address a variety of maintenance,

⁶³ These projects are: Allen 3-1994; Allen 4-1996 & 1998; Allen 5-1996 & 2000; Belews Creek 1-2000; Belews Creek 2-1996 & 1999; Buck 6-1990/91; Cliffside 5-1992/95; Lee 3-1989/90; Marshall 1-1992; Marshall 2-1989 & 1996; Marshall 3-1999; Marshall 4-1990.

⁶⁴ These projects are: Allen 1 & 2; Buck 3-5; Cliffside 1-4; Dan River 3; Riverbend 4, 6, & 7.

⁶⁵ Tuppeny Report at 13 (App. Ex. 62). The "modernization" referred primarily to the upgraded boiler control systems. Duke's Response to U.S. Interrogatory No. 74 (excerpt at App. Ex. 71). As EPA's 30b6 witness on emissions admits, such upgrades do not affect emissions from the boiler. Lloyd 30b6 Dep. (10/05/01) at 29 (App. Ex. 72).

repair and replacement needs identified during the inspections. These requests were consolidated under PMP, and Duke completed the component maintenance, repair and replacement over an extended period of time. This allowed Duke to utilize its in-house engineering, project management and maintenance resources in an optimum fashion so as to distribute those resources over the units in ECS as well as the other units in the Duke system. Knudsen Decl. ¶ 6 (App. Ex. 59).

As discussed above, however, the particular repairs and replacements undertaken under PMP were of the same nature of boiler and turbine component repairs and replacements commonly undertaken by Duke and by industry generally. The only difference is that several repairs and replacements were performed during PMP, because the units were not needed for dispatch. Kinsey Decl. ¶ 9 (App. Ex. 69).

D. EPA Knew for Nearly Two Decades of Duke's Maintenance, Repair and Replacement Activities and Others Like Them in the Industry.

Plaintiff wants to claim now that it did not know about these kinds of projects in the electric utility industry. Not so. As discussed above in Part III.B.3.d, EPA and indeed Congress were fully aware throughout the 1980s that utilities commonly replace boiler and turbine components on their units -- or "refurbish" their units -- at least once during their life in order to maintain the availability and safety of their equipment for at least 55 to 65 years. These practices, sometimes referred to as "life extension," in fact were the impetus for the decade-long debate that culminated in the passage of the Acid Rain Program in 1990. Schweers Report at 4 (App. Ex. 38). Except for the "unprecedented" WEPCo project, EPA never intimated that such projects triggered NSR. EPA's knowledge of such projects was not at some high level of generality. To the contrary, EPA was fully aware of the nature of these projects; EPA employees inspected plants engaged in "life extension projects," compiled lists of such projects, and hired contractors to survey such projects.

EPA in the last two decades has conducted hundreds if not thousands of inspections at utility plants.⁶⁶ EPA's inspectors visited utility plants while boiler component replacement projects were

⁶⁶ Based on data from April 1992 to April 1997 alone, EPA reported: (1) "The number of inspections over the past 5 years for fossil fuel electric power generation facilities (14,210) is more than 3 times the amount conducted in most (continued...)"

ongoing, but none cited these projects even as potential violations of NSR. For example, David Schulz, who is now EPA's "Combustion Process National Oracle,"⁶⁷ inspected power plants throughout the Midwest from 1979 to 1992, and he described in his inspection reports component replacement projects – including boiler tube replacements and turbine overhauls – that are common in the electric industry. See App. Ex. 73. In a 1982 report he wrote:

some maintenance work was scheduled for the unit ... during an 11 week outage scheduled primarily for installation of additional tube surface area to reach rated capacity on the unit [367 MW].⁶⁸

In a 1985 report he wrote:

that boilers 6 & 7 would be out of service for an extended outage (til [sic] April 1987), for major work aimed at upgrading and extending the operating life of these boilers. This project, estimated to cost \$50 million, includes boiler modifications, new air heater installation, and installation of a new turbine with higher generating capacity.⁶⁹

In yet another inspection report from 1988, Mr. Schulz stated:

On the date of the inspection ... Unit 1 was out for a 13 week life extension major overhaul, estimated to cost approximately \$15 million. Unit 2 was out for a 4 week period for a turbine overhaul.⁷⁰

None of Mr. Schulz's reports states that EPA considered these projects to trigger NSR.⁷¹

EPA's knowledge of life extension projects at all levels of the agency is undisputable. In March 1986, three EPA policy analysts published an article entitled "*Extended Lifetimes for Coal-Fired Power*

other [industrial] sectors," and (2) of the 3,166 power generating facilities inspected during the five-year period, each received, on average, "over 6 inspections in the past 5-year period." EPA Office of Enforcement and Compliance Assurance, *Profile of the Fossil Fuel Electric Power Generation Industry*, 123, 125 (Sept. 1997), available at <http://www.epa.gov/compliance/resources/publications/assistance/sectors/notebooks/fossil.html>. (App. Ex. 74)

⁶⁷ This is not a joke, see Schulz Dep. (11/27/01) at 19 (App. Ex. 75), notwithstanding the fact that the agency's own NSR "National Super-Expert" (Solomon Dep. (11/6/01) at 672 (App. Ex. 76)) did not know what that designation exactly means (Solomon 30b6 Dep. (11/8/01) at 225 (App. Ex. 76)). Before he received the "Combustion Process National Oracle" title, Mr. Schulz was an EPA "power plant expert" at least since the mid-1980s. He inspected the WEPCo Port Washington Plant in 1988 in connection with the WEPCo determinations. See Inspection Report of WEPCo - Port Washington Station (Dec. 5, 1988) (App. Ex. 77).

⁶⁸ Inspection report of Dairyland Power's Madgett Station (Sept. 13, 1982) (App. Ex. 78).

⁶⁹ Inspection report of Riverside Generating Station (Oct. 18, 1985) (App. Ex. 78).

⁷⁰ Inspection report of Cincinnati Gas & Electric's Beckjord Generating Station (Mar. 14, 1988) (App. Ex. 78).

⁷¹ See App. Ex. 78 (collecting Schulz inspection reports).

Plants: Effect Upon Air Quality,” where they listed ten “life extension” projects of which they were aware.⁷² The list included Duke’s PMP projects at the Dan River and Allen Plants. Robert Brenner, Director of EPA’s Office of Policy Analysis and Review, reviewed a draft of the article. Brenner Dep. (8/01/02) at 296 (App. Ex. 80). That same year, an EPA official attended an Electric Power Research Institute (EPRI) conference on “Life Extension and Assessment of Fossil Plants.”⁷³ EPRI published the proceedings of the conference in an 1,100-page publication in which utilities presented detailed descriptions of many “life extension” projects, including projects at Duke Power Company, Boston Edison, Cincinnati Gas & Electric, New England Power Service Company, Pennsylvania Power & Light Company, Potomac Electric Company, Utah Power & Light Company, Alcoa/Texas Utilities Sandow power plant, Consolidated Edison, and WEPCo.⁷⁴ The EPA official who attended the conference was a “rapporteur” for the conference and thus would have read all these papers.⁷⁵

In 1988, when EPA was reviewing the WEPCo project, WEPCo complained to EPA’s Administrator that EPA was treating WEPCo’s project differently than other life extension projects in the industry. *See* Final WEPCo Determination at 2. And, in response to EPA’s ensuing request for information “regarding other power plant renovation projects that WEPCO believes were similar to the one planned at Port Washington but were not subject to NSPS/PSD,” WEPCo identified two EPRI publications that contained many such examples, including the proceedings of the 1986 EPRI conference discussed above, and provided EPA with detailed information on four projects.⁷⁶ One of the four projects

⁷² James DeMocker, Judith Greenwald, Paul Schwengels, *Extended Lifetimes for Coal-Fired Power Plants: Effect Upon Air Quality*, Pub. Util. Fortnightly 30, Mar. 20, 1986, at 31 (App. Ex. 79).

⁷³ U.S. Response to Defendant’s Request for Admission No. 223 (Excerpt at App. Ex. 81).

⁷⁴ *See Conference Proceedings: Life Extension and Assessment of Fossil Power Plants*, EPRI Pub. CS-5208 (1987) (Excerpt at App. Ex. 82).

⁷⁵ Dooley 30b6 Dep. (12/04/02) at 198-99 (App. Ex. 83).

⁷⁶ Letter from N. Childress, WEPCo, to G. McCutchen, EPA (Sept. 27, 1988) (App. Ex. 84). The two EPRI publications identified by WEPCo, “EPRI Pub. CS-4207” and “EPRI Pub. CS-5208,” contained Duke-authored articles about the Allen and Dan River PMP projects. The four projects identified by WEPCo in its letter were Duke’s Dan River 2 PMP project, Cinergy’s Beckjord life extension (which was inspected by EPA’s “Oracle,” David Schultz), Alcoa/Texas Utilities’ life extension project at the Sandow plant, and Hydraco Enterprises’ “rehabilitation of six boilers and replacement of two turbine generators.” *See id.*

identified for EPA was Duke's Dan River 2 PMP project, where Duke had "replaced the lower economizer bank, a large portion of the drum circuit, all of the feedwater heaters and all of the condensate and heater drain pumps" in an outage that included "overhaul of the precipitators and other auxiliary equipment and repair of the generator rotor."⁷⁷ In the WEPCo final applicability determination, Administrator Thomas distinguished Duke's Dan River 2 PMP project, as well as the other life extension projects identified by WEPCo, from WEPCo's project: "Regarding the four utility projects identified in your September 27 submission, I note that they do not involve steam drum replacement." Final WEPCo Determination at 4 (App. Ex. 29).

Administrator Thomas also ordered EPA staff to conduct an "informal survey" of EPA regional offices and state agencies to determine whether there were life extension projects other than those specifically identified by WEPCo. *Id.* at 3. Sally Harmon and Walter Stevenson conducted the survey in September of 1988, and they produced a report dated September 23, 1988 entitled "Power Plant Modification/Reconstruction Determinations," listing approximately 21 projects. (App. Ex. 85).⁷⁸ Separately, Mr. Stevenson prepared a list of 25 "known/suspected utility life extensions/repowering projects" based upon publicly available information he found in magazine and journal articles. (App. Ex. 87). That list included "life extension" projects at Duke's Allen and Dan River plants. Stevenson 30b6 Dep. (9/10/02) at 39-46 (App. Ex. 32). In December 1988, the Chairman of the House Subcommittee on Oversight and Investigations, Congressman John Dingell, wrote Administrator Thomas to inquire about EPA's informal survey and specifically about Duke's Dan River 2 project and the Texas Sandow plant

⁷⁷ *Id.* Dan River 2 was the pilot project for PMP. Dan River 2 demonstrated what could be done and what needed to be done in an enhanced maintenance outage. Dan River 2 in particular, as well as other Duke units in PMP and the PMP program more generally, received extensive coverage in the trade press. *See, e.g.,* R.M. Sandifer, Duke Power Co., *Fossil Plant Extension of Life Studies: The Duke Approach and the Results*, Proceedings: Fossil Plant Life Extension Conference and Workshop, EPRI Pub. CS-4207, 201 (1984); William F. Hall, Duke Power Co., *Dan River Steam Station: Unit 2 -- Upgrade for Life Extension*, Conference Proceedings: Life Extension and Assessment of Fossil Power Plants, EPRI Pub. CS-5208, 63 (1987); and F. Housely Carr, *Utility Restores Old Coal-Fired Units -- Work Is Scheduled to Return Idled Powerplants to Service When Needed*, Engineering News Record, 72 (Mar. 17, 1988). WEPCo identified in its September 27, 1988 letter to EPA these 3 publications (App. Ex. 84).

⁷⁸ Harmon 30b6 Dep. (1/29/02) at 86-88 (App. Ex. 86).

project. Letter from J. Dingell to L. Thomas (Dec. 21, 1988) (App. Ex. 88). EPA's Administrator responded in April 1989 that EPA's survey "did not result in the detection of any violations." Letter from W. Reilly to J. Dingell, at 2 (Apr. 19, 1989) (App. Ex. 45).

By May 1989, EPA's list of potential life extension projects had grown to almost sixty.⁷⁹ The list was prepared by Radian Corporation under a contract pursuant to which Radian assisted EPA in identifying life extension projects; among the sixty plants on that list were Duke's Allen, Riverbend, Dan River, Lee, Buck, and Cliffside plants, all of which are at issue in this case.⁸⁰

In his December 1988 letter, Chairman Dingell also informed EPA that his subcommittee asked the GAO for a report on utility life extension issues. December 21, 1988 Dingell Letter at 4 (App. Ex. 88). The GAO issued its report in September 1990, stating that "[a]ccording to EPA officials, WEPCo's life extension project is not typical of the majority of utilities' life extension projects and concerns that the agency will broadly apply the ruling applied to WEPCo's project are unfounded." "Lending evidence to the officials' statements," GAO noted, "EPA's 1989 emission forecast assumed that the WEPCo decision would not result in a significant number of additional power plants' having to comply with the NSPS and the PSD program requirements." GAO 1990 Report at 30-31 (App. Ex. 42).

EPA officials were fully aware of and agreed with the GAO's conclusions, both before the report was issued (as indicated in the report itself)⁸¹ and after it was issued. Chairman Dingell formally

⁷⁹ See Memorandum from J. Farmer, EPA, Attachment 3 (May 10, 1989) (App. Ex. 89). This memorandum also enclosed an information request under § 114 of the CAA to be sent to the listed utilities. *Id.* Indeed, EPA Region IV sent such an information request to Duke on June 1, 1989 (App. Ex. 90) as did the EPA Regions to virtually every utility in the country. In January 1990, the Office of Management and Budget quashed the request under the Paperwork Reduction Act and gave EPA guidance on how to renew the request and comply with the Act. (App. Ex. 91). EPA made no effort to renew that request. Dubose 30b6 Dep. (3/14/02) at 38-44 (App. Ex. 92).

⁸⁰ *Id.*; Dubose 30b6 Dep. (6/26/02) at 56-59 (App. Ex. 92).

⁸¹ Before the report was issued, GAO sent a fact sheet about life extension listing most of the information to be included in the report and asked for EPA's comments. See Memorandum from S. Tiber, EPA/GAO Liaison Officer to N. Kete, B. McLean, and F. Porter, Office of Air and Radiation (Apr. 10, 1990), attaching GAO Fact Sheet, "Utility Decisionmaking for Aging Powerplants" (App. Ex. 93). The fact sheet was distributed widely at EPA. See *id.* (listing eight additional recipients to the three main recipients); Tiber Dep. (5/15/02) at 21-22. Robert Brenner, EPA's Director of EPA's Office of Policy Analysis and Review, was one of the sources of the GAO's reference to "EPA officials" having confirmed that most life extension projects do not trigger PSD. See *id.* at 37-41 (App. Ex. 43). Although he testified that he does not remember making the statement, Mr. Brenner admitted that it is

(continued...)

transmitted the report to EPA and asked the Administrator again about WEPCo and the GAO's report assessment. Letter from John Dingell to James Watkins, William Reilly, and Michael Boskin (Oct. 9, 1990) (App. Ex. 94). Assistant Administrator William Rosenberg responded for EPA, stating that "[a]s indicated in the GAO report, it is expected that most utility projects will not be similar to the WEPCo situation" and that "the [WEPCo] ruling is not expected to significantly affect power plant life extension projects." Letter from Rosenberg to Dingell at 5-6 (June 19, 1991) (App. Ex. 44) (first emphasis added).

Duke told EPA about all of its PMP projects, not just those at Allen and Dan River. The Acid Rain provisions of the 1990 Amendments required EPA to set baseline emissions levels for each utility coal-fired unit. Although Congress specified that the years 1985-1987 would generally be used as the baseline, it gave EPA discretion to adjust that baseline to account for normal operation of utility systems. In 1991, EPA published a notice for a national allowance database, which was to be the basis for the allocation of emissions allowances. Bloomer 30b6 Dep. (11/25/02) at 32 (App. Ex. 95). In response, Duke submitted a request for adjustment to its baseline emissions levels. *Id.* at 28 and App. Ex. 96. Duke representatives met with EPA in September 1991 and requested that EPA adjust Duke's baseline (or use an alternative baseline) for the purpose of calculating allowances due to the extended outages at several of its fossil units which were in PMP. *Id.* at 39. Duke provided EPA with information on the nature of the PMP outages and the type of work that was occurring on the fossil units in PMP. *Id.* at 41. After this face-to-face meeting, Duke followed up with telephone calls and letters, offering to provide more information about PMP. EPA did not respond to these offers. *Id.* at 47-48.

Despite all this information on the nature of the PMP program, EPA did not express any NSR concerns. Indeed, Mr. Bloomer testified that had they detected any potential violations in the course of their work on this issue, they would have had a duty to refer the matter to EPA's enforcement branch. *Id.* at 54. Furthermore, Mr. Bloomer testified that information about Duke's PMP and the decision on Duke's request for an allowance allocation adjustment would have gone up the chain of command, possibly as far

consistent with his opinion at the time. Brenner Dep. (8/13/02) at 9-16 (App. Ex. 80).

as Assistant Administrator Rosenberg and Administrator Reilly. *Id.* at 137-138.

E. North and South Carolina Knew of and Approved Duke's Largest Outages.

When Duke considered the ECS program in the early 1980s, it recognized the importance of informing the state permitting agency of its plans in order to insure that restarting the units after an extended cold shutdown would not make them subject to PSD.⁸² Accordingly, Duke sought and received express approval from the state permitting agencies -- North Carolina Department of Environment and Natural Resources (NCDENR) and South Carolina Department of Health and Environment Control (SCDHEC) -- that neither NSPS nor PSD would be triggered by the restart of the units after a temporary shutdown under the ECS program, while keeping their permits current and not removing the units from the states' emissions inventory.⁸³ NCDENR's response indicated that it knew that maintenance, repair, and replacement projects would occur during ECS because it warned that the "reconstruction" regulations could be triggered if the costs of the work exceeded 50% of the cost of a replacement unit. Letter from R. Helms to R. Shearin (Sept. 15, 1983) (App. Ex. 102).

Duke stayed in constant contact with state regulators and told NCDENR regulators about the work to be done under PMP. For example, in the early 1980s, Keith Sipe and Kris Knudsen (of Duke) communicated with NCDENR on a frequent basis to keep Duke's permits current for those units in ECS and PMP, for permit renewal, or to adjust the stack testing schedule required by the permits to accommodate the ECS and PMP schedule. Knudsen Decl. ¶ 7 (App. Ex. 59). Although the 1983 letters

⁸² Under EPA's "reactivation policy," the restart of a unit that was permanently shutdown is equivalent to constructing a new unit, and thus subjects that unit to PSD. See Memorandum from E. Reich, EPA, to S. Dvorkin, EPA Region II (Sept. 6, 1978) (App. Ex. 97). Under that policy, a shutdown of more than two years is considered permanent, unless the source owner demonstrates its intent to shutdown the unit only temporarily. EPA has typically given special weight to a source's relinquishment of its operating permits and its removal from the state's emissions inventory during the shutdown as evidence of the permanent nature of the shutdown. *E.g., id.*; Memorandum from E. Reich, EPA, to S. Gardebring, EPA Region V (Oct. 3, 1980) (App. Ex. 98).

⁸³ Letter from R. Shearin, Duke, to R. Helms, North Carolina Department of Natural Resources and Community Development (Aug. 17, 1983) (App. Ex. 99); Letter from R. Shearin, Duke, to R. Davis, SCDHEC (Aug. 17, 1983) (App. Ex. 100); Letter from W. Culler, Bureau of Air Quality Control to R. Shearin, Duke (Aug. 23, 1983) (App. Ex. 101); Letter from R. Helms, North Carolina Department of Natural Resources and Community Development, to R. Shearin, Duke (Sept. 15, 1983) (App. Ex. 102). Both the NCDENR and SCDHEC letters were copied to EPA. EPA never objected to the states' determinations.

do not identify any repair or replacement of components to take place on these units while off-line, there is no dispute that NCDENR was notified of such replacement work at the highest levels. For example, Keith Sipe in an April 19, 1985 letter informed both the Regional Supervisor and Ogden Gerald, then the Assistant Chief of Air Quality in Raleigh, that “Units 1 through 4 have been placed in extended cold shutdown. These units will be out of service for several years. New controls and components will be installed in these units which will provide for a more efficient operation, hence a reduction in pollutant emissions.” (App. Ex. 103) (emphasis added). Furthermore, in a letter dated March 30, 1989, Michael Aldridge notified Regional Supervisor Myron Whitley (as well as Ogden Gerald and Lee Daniel in Raleigh), that EPA intended to “evaluate NC-DEM’s 1983 decision that the (PMP) did not cause Dan River 2 to become subject to NSPS Subpart D.” (App. Ex. 104) (emphasis in original).⁸⁴

NCDENR regulators, who were charged with the responsibility for determining the compliance of Duke’s plants with the CAA, repeatedly inspected and evaluated Duke’s plants while the units were in PMP, and knew of the work being performed on the units in PMP. Duke has located no less than twenty-three reports in which a state regulator inspected Duke plants and specifically noted that one or more units were at the time in ECS or PMP. Every one of these reports certified that the plants were in compliance with all applicable air quality regulations.⁸⁵ For example, in the course of renewing the state permits for Duke’s Buck units in June 1987, NCDENR wrote:

On January 20, 1987, the writer inspected the facility. None of the units were in operation during the inspection. Unit Nos. 3, 4 and 5 are currently in the plant modernization project (PMP) until 1989. The facility is considered to be in compliance with the applicable regulations. ... PSD, NSR, NSPS, and NESHAP do not apply.⁸⁶

If the work had even raised a question regarding PSD applicability, North Carolina regulators

⁸⁴ This is significant because there is no “reactivation” policy under NSPS. NSPS could apply only if the work undertaken at the unit constituted a “modification.” See Letter from M. James, EPA, to J. Farmer, EPA (Feb. 14, 1973) (App. Ex. 105). Accordingly, the reference to NSPS in the Aldridge letter clearly demonstrates awareness of the component repair and replacement work undertaken during PMP. Duke also provided the state with information on component replacement at its units and the Air Quality regulators in North Carolina were “very aware” of Duke’s maintenance, repair and replacement practices. See Sipe Dep. (12/12/02) at 77-79; 33 (App. Ex. 106).

⁸⁵ These reports are included in App. Ex. 107 .

⁸⁶ Air Quality Action Request, Duke Power Co., Buck Steam Station (Jun. 3, 1987) (App. Ex. 107).

would have at least asked, and they would have been given full access to any information requested. As one state inspector that has inspected Duke facilities for the last 11 years put it, Duke was always “very open and forthcoming” in its dealings with the state agencies.⁸⁷

IV. QUESTIONS PRESENTED

1. Whether EPA can lawfully apply the actual-to-potential emissions increase test to Duke’s existing units, where the PSD regulations explicitly reject this test for units, like Duke’s units, which have begun normal operations?
2. Whether Duke’s component repair and replacement projects are “major modifications” under the applicable state PSD rules where the projects did not increase the units’ actual emissions because they did not create any new emissions capacity?
3. Whether Duke’s component repair and replacement projects are “major modifications” under the applicable state PSD rules where the repairs or replacements were routine in the electric utility industry?
4. Whether EPA can lawfully enforce retroactively a new interpretation of the regulations that is inconsistent with its long-established interpretation, where EPA has not undertaken notice-and-comment rulemaking to change its interpretation?

V. ARGUMENT

EPA must show that each Duke project both (1) caused a significant net emissions increase and (2) was non-routine maintenance, repair and replacement. Under the settled meaning of the CAA and 1980 NSR regulations, EPA cannot prove either of these two essential elements. Duke is therefore entitled to summary judgment on either of those grounds.

A. The Duke Projects Are Not Modifications Because They Did Not Cause Significant Net Emissions Increases.

The parties agree that, in the first instance, this case is governed by the 1980 PSD rules, 40 C.F.R. § 51.166, as adopted by North and South Carolina and incorporated in their SIPs. The Court is faced with starkly different interpretations of these rules. EPA attempts to resurrect the actual-to-potential test for existing units -- a test that is contrary to the regulatory language, as the Seventh Circuit held in *WEPCo*,

⁸⁷ McManus Dep. (12/11/02) at 8 (App. Ex. 108); *see also id.* at 11 (“It’s been my experience not only [in] this inspection but throughout my dealings with Duke Power, whether there’s been a situation that may lead to a notice of violation or whether it’s just been issues that need clarification, that they’ve always been forthcoming with whatever I have asked for.”).

and that EPA itself repudiated a decade ago in the *Federal Register*. The plain language of the 1980 rules makes clear that the actual-to-potential test does not apply to units that have begun normal operations. Duke's units have long, established operating histories, and certainly they have begun normal operations. Accordingly, the Court should rule that the actual-to-potential test cannot be lawfully applied to Duke's units. The 1980 rules, moreover, admit of only one other test -- the one that is consistent with the statute, the one that EPA applied shortly after the 1980 rules were promulgated, and the one that the *WEPCo* court ordered EPA to apply on remand in that case -- the actual-to-actual test. Under this test, only an increase in the maximum hourly emissions rate of the unit could potentially trigger NSR, because annual emissions before and after the project must be based on the same representative hours and conditions. There is no evidence in this case that any of Duke's projects increased the units' maximum hourly emissions rate. Accordingly, Duke is entitled to summary judgment with respect to all 29 projects.⁸⁸

1. The actual-to-potential test is unlawful for units that have begun normal operations.

The "actual-to-potential" emissions increase test almost always predicts a significant emission increase because past actual emissions of a unit (operating at less than all hours in a year) will always be less than future potential emissions of a unit assumed to operate all hours in a year.⁸⁹ EPA contends that the 1980 rules require application of the actual-to-potential test whenever there is a "non routine" change.⁹⁰ EPA claims this test is the only possible test under the regulations.⁹¹ To reach this unlikely

⁸⁸ For each project at issue, the Complaint asserts two claims: (i) a PSD claim and (ii) a general state permitting claim (hereinafter "general state claim"). See, e.g., Complaint ¶¶ 33 (alleging Duke failed to obtain a PSD permit pursuant to 15A NCAC 2D .0530) & 37 (alleging Duke failed to obtain a permit to construct pursuant to 15A NCAC 2Q .0301). It appears from the Complaint and EPA's prosecution of this case that EPA views the general state claims as derivative from the PSD claims. For example, EPA presented calculations of alleged emissions increases under its view of the PSD regulations, and it presented no separate calculations or any other evidence related to the alleged general state claims. Sahu Dep. (11/25/02) at 10-12 (App. Ex. 66); Lloyd 30b6 Dep. (10/4/01) at 63-69; 136-138; 141-44 (App. Ex. 72). Thus, although this brief addresses in detail only the PSD regulations, Duke is entitled to summary judgment on both the PSD and general state claims.

⁸⁹ Lloyd 30b6 Dep. (10/4/01) at 66-68 (App. Ex. 72) (conceding that the actual-to-potential test always leads to an increase, unless a unit installs pollution control equipment).

⁹⁰ Lloyd 30b6 Dep. (10/5/01) at 295-297 (App. Ex. 72).

⁹¹ Sahu Dep. (11/25/02) at 142 (App. Ex. 66) (conceding that if the *WEPCo* court's holding is correct -- that the actual-to-potential test cannot be applied to a unit that has begun normal operations -- "there is nothing in the 1980

(continued...)

result, EPA relies again in this case on the discredited, circular reasoning that it proposed in *WEPCo*. According to EPA's witness, every "non-excluded physical change or change in the method of operation" at an existing unit is a "major modification."⁹² And, under the 1980 regulations, he continues, "It is also assumed that the unit undergoing modification will not have begun normal operations after the modification." Accordingly, the actual-to-potential test always applies, under the agency's logic.⁹³ As the Seventh Circuit put it in rejecting this circular argument: "in order to demonstrate that [a] replacement project constitutes a modification," EPA "applies the potential to emit concept (to show an increase in emissions)," and, "in order to apply the potential to emit concept to like-kind replacement, the EPA *assumes* that the plant is a 'modified' unit." *WEPCo*, 893 F.2d at 917 (emphasis added). Like the Seventh Circuit before it, this Court should not accept "agency interpretations that, as applied here, ... assume what they seek to prove." *Id.*

The plain language of EPA's 1980 regulations, implemented by North Carolina and South Carolina in their SIPS, belies EPA's position. The actual-to-potential test applies only in very narrow circumstances, for units that have not begun normal operations. 40 C.F.R. § 51.166(b)(21)(iv). It is undisputed that Duke's units had begun normal operations long before any of the projects at issue here occurred. Deese Decl. ¶ 3 (App. Ex. 58); *see also* Koppe Dep. (12/5/02) at 238-41 (App. Ex. 61). Duke's units, in the words of two Circuit courts, are "'established operation[s]'" to which the potential to emit concept cannot be applied lawfully. *See WEPCo*, 893 F.2d at 917 (quoting *Alabama Power Co. v. Costle*, 636 F.2d 323, 379 (D.C. Cir. 1979)).

Significantly, EPA cannot explain what emissions increase test is provided under the 1980 PSD rules for a unit that has begun normal operations and that undergoes a physical or operational change.⁹⁴

rules that defines [another] test"); *id.* at 156 (conceding that the tests he applied in his report, other than the actual-to-potential test, are "not set forth in the 1980 rules").

⁹² Rebuttal Report of Ranajit (Ron) Sahu ("Sahu Rebuttal Report") at 7 (Excerpt at App. Ex. 109).

⁹³ *Id.* at 7-8 (emphasis added).

⁹⁴ *See, e.g.,* Sahu Dep. (11/25/02) at 142 (App. Ex. 66).

In the WEPCo remand determination, EPA applied an “actual-to-projected-actual” test, but without any reference to the regulatory language of the 1980 rules. *See supra* Part II.B.3.d. Here again, despite his strident insistence that the actual-to-potential test is the only possible test available under the 1980 rules, EPA’s purported expert witness on the PSD regulations presented several other alternative tests (based on some variation of an “actual-to-projected-actual” methodology) that “[w]hile ... not explicitly referenced in EPA’s PSD regulations” are “plausible approaches” to applying these regulations.⁹⁵ That is not good enough. Basic principles of administrative law require EPA to apply the test that the rules explicitly provide, not some “plausible” approach that is nowhere to be found in the rules themselves.⁹⁶

2. No net emissions increases resulted from the Duke projects because the projects did not create any new emissions capacity.

Notwithstanding EPA’s feigned ignorance, the 1980 PSD rules do include an emissions test for units that have begun normal operations. It is the test required by the Act and the test that EPA applied in 1981 shortly after promulgation of the rules that were implemented by North and South Carolina in their SIPs in 1982. And it is the test that the *WEPCo* court ordered EPA to apply on remand. *See supra* Part II.B.3.c. In order to prove a significant net emissions increase under PSD, EPA must first prove an “increase in actual emissions from a particular physical change or change in the method of operation at a stationary source.” *See* 40 C.F.R. § 51.166(b)(3)(i)(a). The term “actual emissions” is defined in 40 C.F.R. 51.166(b)(21): for units that have not begun normal operations, it is the unit’s potential to emit, *id.* § 51.166(b)(21)(iv); for units that have begun normal operations, it is defined by reference to a historical (pre-change) period “which is representative of normal source operation.” *Id.* § 51.166(b)(21)(ii). For such units, the “increase” in actual emissions must result from a “physical [or operational] change,” which is defined to exclude “an increase in the hours of operation or in the production rate,” unless there

⁹⁵ Report of Ranajit (Ron) Sahu (“Sahu Report”) at 41, 39 (Excerpts at App. Ex. 110).

⁹⁶ *See, e.g., Panhandle Eastern Pipe Line Co. v. FERC*, 613 F.2d 1120, 1185 (D.C. Cir. 1979) (“It has become axiomatic that an agency is bound by its own regulations. The fact that a regulation as written does not provide FERC a quick way to reach a desired result does not authorize it to ignore the regulation or label it ‘inappropriate.’”) (*citing Service v. Dulles*, 354 U.S. 363, 77 S. Ct. 1152 (1957)); *Union of Concerned Scientists v. AEC*, 499 F.2d 1069, 1082 (1974) (*citing also United States v. Nixon*, 418 U.S. 683, 695-96, 94 S. Ct. 3090, 3101-02 (1974)).

are limits on the hours of operation or production rate under a federally enforceable NSR permit condition. *See id.* 51.166(b)(2)(iii)(f).⁹⁷

The 1980 rules, therefore, require a comparison on an annual basis of pre-project annual emissions and future “actual” emissions, assuming constant hours of operations and conditions.⁹⁸ As EPA explained shortly after promulgation of these rules, if the project does not increase the unit’s maximum hourly emissions rate, there can be no annual emissions increase under constant hours of operations and conditions.⁹⁹ Here, EPA has adduced no evidence that the projects at issue increased the maximum hourly emissions rates of Duke’s units.¹⁰⁰ Rather, EPA based all of its emissions calculations on the assumption that unit utilization alone -- *not* the units’ maximum emissions rates -- would increase after the projects.¹⁰¹ Duke presented ample evidence that none of the projects increased the maximum hourly emissions rates of the units.¹⁰² Thus, Duke’s projects did not result in an increase in “actual emissions” under the 1980 PSD rules for units that have begun normal operations (all units at issue) and they are not “major modifications” under those rules. Duke is therefore entitled to summary judgment.

B. Duke’s Maintenance, Repair and Replacement of Components on its Units Were Routine and Therefore not “Modifications” of those Units.

Activities that are “routine maintenance, repair and replacement” (RMRR) are not physical or operational changes and thus cannot be modifications under the PSD rules. 40 C.F.R. § 51.166(b)(2)(i), (iii)(a). Here, too, the Court is faced with starkly different interpretations of the regulations. As the Eleventh Circuit put it, the “central disagreement between [the utility] and EPA is whether ‘routine’

⁹⁷ It is undisputed that Duke’s units are not subject to permit limitations on hours or production rate.

⁹⁸ *See WEPCo*, 893 F.2d at 918 n.14; 40 C.F.R. § 51.166(b)(21)(ii) (1987).

⁹⁹ *See* Letter of Reich, EPA, to Gill, GE (Jun. 24, 1981) (App. Ex. 23).

¹⁰⁰ Importantly, EPA made no allegation in the Complaint or at any time in this case that Duke’s projects triggered the NSPS modification rules, 40 C.F.R. § 60.14, by increasing the unit’s maximum achievable hourly emissions rate, which even EPA concedes is the emissions increase test under NSPS.

¹⁰¹ *Sahu Dep.* (11/25/02) at 39-40 (App. Ex. 66) (confirming that the projects did not increase the “capacity rating” of the units and that under those conditions the potential to emit of the units and therefore their maximum hourly emissions rates would not have increased).

¹⁰² *See* Tuppeny Report, *passim* (App. Ex. 62); Bishop Report, *passim* (App. Ex. 64); Graves Report at 8 (App. Ex. 67). *See also* Kinsey Decl. ¶ 10 (App. Ex. 69).

should be defined relative to an industrial category or to a particular unit.”¹⁰³ The established interpretation of the RMRR exclusion, however, is that it “must be based on the evaluation of whether that type of equipment has been repaired or replaced by sources within the relevant industrial category.” 57 Fed. Reg. at 32,326 (emphasis added). Under this standard, Duke’s component repair and replacement projects are not modifications because they consist of repairs and replacements that are common in the utility industry. This Court should not sanction EPA’s attempt to change this long-standing interpretation -- an interpretation that was approved by Congress when it conformed the definition of “modification” under NSR to the pre-existing NSPS usage -- by enforcement fiat, retroactively and without notice-and-comment rulemaking.

1. Under EPA’s established interpretation of the modification rule, Duke’s component repair and replacement projects are not “physical changes” because they are common in the industry.

The RMRR provision has been part of the New Source programs ever since EPA issued the very first regulatory definition of “modification” in 1971. *See supra* Parts II.B.1-2. Twice in the 3-decade history of these programs, EPA elucidated the standard that governs the “routine” inquiry in generally applicable *Federal Register* language. In 1975, EPA clarified that a modification “shall not include ... maintenance, repair or replacement” projects “routine for a source category.” 40 Fed. Reg. 58,416, 58,419 (Dec. 16, 1975) (App. Ex. 7) (emphasis added). When Congress specified in the 1977 Amendments that the definition of “modification” under NSR must conform to the prior meaning and usage under § 111, the “source category” standard was part of that usage. In 1992, EPA again advised,

the determination of whether the repair or replacement of a particular item of equipment is “routine” under the [PSD] regulations, while made on a case-by-case basis, must be based on the evaluation of whether that type of equipment has been repaired or replaced by sources within the relevant industrial category.¹⁰⁴

EPA’s actions and pronouncements in the last 3 decades confirm the “source category” standard for RMRR. It is undisputed that EPA -- at the highest levels -- was aware that utilities all over the United

¹⁰³ *Tennessee Valley Auth. v. United States EPA*, 278 F.3d 1184, 1189 n.3 (11th Cir. 2002).

¹⁰⁴ 57 Fed. Reg. 32,314, 32,326 (July 21, 1992) (emphasis added).

States were replacing boiler components, as part of enhanced maintenance programs sometimes referred to as “life extension.” EPA’s own staff and outside consultants surveyed these activities. EPA’s highest officials responded to Congressional inquiries and GAO questions -- especially following *WEPCo* -- and confirmed that EPA had surveyed “life extension” activities in the U.S. and had “detected no violations” of NSR. *See supra* Part III.D. EPA could not have made these statements had it not concluded that these activities were RMRR because they are common in the industry.¹⁰⁵

With respect to Duke in particular, EPA has known at least since 1986 that Duke was engaged in the PMP program. EPA knew of the Duke program (1) from industry publications, where Duke described its PMP enhanced maintenance program and some of its projects in detail; (2) from EPA’s own surveys of the industry; (3) from Duke’s submittals to EPA under the Acid Rain Program; and (4) because *WEPCo* directly told EPA about Duke’s program. *See supra* Part III.D. Yet, not until more than a decade later did EPA allege such projects triggered NSR. As one district court put it, “EPA’s lack of enforcement speaks volumes.”¹⁰⁶ There can be no explanation for EPA’s statements and lack of enforcement other than the fact that EPA interpreted the RMRR provision to be based on “whether that type of equipment has been repaired or replaced by sources within the relevant industrial category.” 57 Fed. Reg. at 32,326.

Under the test set forth in the *Federal Register*, Duke’s projects are RMRR. EPA’s own proffered boiler expert admitted as much in response to a question of whether replacements of boiler components such as those at issue here “is common in the electric utility industry over those 20 to 25 years”: “If common means that some significant number of units have done such replacements at some time in their lives, then it is common.”¹⁰⁷ Whether the replacement of particular equipment is RMRR under PSD “must be based on the evaluation of whether that type of equipment has been repaired or

¹⁰⁵ If, as EPA insists in this case, the actual-to-potential test applies to any non-excluded physical change, then the only way that EPA could conclude that the projects did not trigger NSR would be to conclude that they were RMRR. Lloyd 30b6 Dep. (10/4/01) at 66-68 (App. Ex. 72) (conceding that the actual-to-potential test always leads to an increase, unless a unit installs pollution control equipment).

¹⁰⁶ *United States v. American Nat’l Can Co.*, 126 F. Supp. 2d 521, 528 (N.D. Ill. 2000).

¹⁰⁷ Koppe Dep. (12/4/02) at 63 (App. Ex. 61); *see also* Tuppeny Report at 93 (App. Ex. 62).

replaced by sources within the relevant industrial category.” Duke’s replacement projects meet this test and thus are not subject to PSD. Accordingly, Duke is entitled to summary judgment on this ground too.

2. EPA’s attempt to impose a new modification rule by litigation is unlawful.

With the evidence clear that Duke’s projects are common in the industry and thus RMRR under PSD, EPA is using the current wave of litigation to experiment with a variety of new RMRR definitions:

- “[A]ccording to EPA Enforcement, routineness should be determined according to a broader range of considerations, including, most notably, the significance of the project in the life of the unit in question. Thus, in EPA Enforcement’s view, an activity is more likely to be regarded as routine if it is not unusual in the life of a given unit.”¹⁰⁸
- “The routine maintenance exemption . . . only applies to activities that are routine for a typical generating unit within the industry.”¹⁰⁹
- “The U.S. Environmental Protection Agency (‘EPA’) . . . has long held that, a physical change is ‘routine’ only if it occurs at a large percentage of units in the industry and it occurs repeatedly at such units.”¹¹⁰
- The routine “exclusion is limited to truly minor activity” that occurs “frequently” at an individual unit. “[R]unning maintenance is much closer to the natural meaning of routine activity.”¹¹¹
- “Routine” is determined by evaluating whether equipment has been repaired or replaced at a specific electric generating unit.¹¹²
- “[I]t is the agency’s position that in evaluating a physical change to determine if it is routine or not, that decision is informed by the type of work that is done on a typical unit within that source category.”¹¹³

¹⁰⁸ *In re: Tennessee Valley Authority*, Final Order on Reconsideration, Docket No. CAA-2000-04-008, CAA Docket No. 00-6, at 49-50 (EAB Sept. 15, 2000) (excerpt at App. Ex. 111). The EAB order in TVA is part and parcel of EPA’s enforcement initiative. Unlike Administrative Law Judges whose independence from agency heads is guaranteed by statute, *see* 5 U.S.C. § 7521, the EAB members are mere delegates of the EPA Administrator. *See* 57 Fed. Reg. 5320, 5320-22 (1992). The EAB’s order is currently on appeal before the Eleventh Circuit, and a decision is pending. *See TVA v. U.S. EPA*, 278 F.3d 1184 (11th Cir. 2002).

¹⁰⁹ Plaintiffs’ Memorandum in Support of a Request for Ruling on Inadmissibility Pursuant to Fed. R. Evid. 807 or, in the Alternative, Motion to Compel (Aug. 16, 2002) at 2 (no citation provided) (excerpt at App. Ex. 57).

¹¹⁰ *United States et al. v. Am. Elec. Power Serv. Corp. et al.*, Civil Action Nos. C2-99-1182, C2-99-1250 (S.D. Ohio), Plaintiffs’ Reply Memorandum in Support of Early Liability Trial on a Representative Plant (Docket # 80) (Feb. 26, 2001) at 3 (emphases in original) (no citation provided) (excerpt at App. Ex. 112).

¹¹¹ EPA’s Feb. 21, 2001, Brief in *TVA v. U.S. EPA* (11th Cir.), at 69, 74 n.49 (excerpt at App. Ex. 113).

¹¹² *In re: Tennessee Valley Authority*, Final Order on Reconsideration, Docket No. CAA-2000-04-008, CAA Docket No. 00-6, at 50 (EAB Sept. 15, 2000) (excerpt at App. Ex. 111).

¹¹³ Solomon 30b6 Dep. (3/7/02) at 466 (App. Ex. 76). When pressed on this point, however, Mr. Solomon and EPA could not provide a definition for a “typical” electric utility unit. Solomon Dep. (9/10/02) at 7-13 (App. Ex. 76).

None of the forgoing “approaches” is the law. They are new interpretations of the rules that EPA wishes to advance. But there is a procedure EPA must follow to adopt new regulatory interpretations, a procedure that has not been followed and which EPA is attempting to avoid by resorting to this litigation.

- a) EPA’s new interpretation of the RMRR provision is inconsistent with Congressional intent and the original intent of the regulations.

EPA’s litigation positions are inconsistent with the routine-within-the-industry rule, established under NSPS regulations issued by EPA in the early 1970s; incorporated by Congress into the NSR programs in 1977, by EPA into the NSR regulations in 1978 and 1980, and into the North and South Carolina SIPs in 1982; and reaffirmed by EPA in 1992. Under that rule, maintenance, repair, and replacement projects routinely done within the electric utility industry are not modifications, and a source is not required to obtain an NSR preconstruction permit before undertaking such projects.¹¹⁴ Accordingly, EPA’s routine tests proffered in this litigation and the agency’s enforcement initiative are inconsistent with congressional intent and should be rejected.¹¹⁵

EPA’s litigation positions are also inconsistent with the original intent of the rule. When EPA promulgated the PSD rules in the wake of the 1977 CAA amendments, it included the RMRR provision without any controversy (indeed, no one filed any comments on the RMRR provision in the 1980 rulemaking), and against the backdrop of its statement in 1975 that modification “shall not include ... maintenance, repair or replacement” projects “routine for a source category.” 40 Fed. Reg. 58,416, 58,419 (Dec. 16, 1975) (App. Ex. 7) (emphasis added). In 1980, contemporaneously with the

¹¹⁴ This is the rule under regulations issued by EPA in 1971 (40 C.F.R. § 60.2(h) (1971); 36 Fed. Reg. 24,876, 24,877 (Dec. 23, 1971)) and revised by EPA in 1975 (40 C.F.R. § 60.14(e)(1) (1975), 40 Fed. Reg. 58,416, 58,419 (1975)) to implement NSPS. Congress ratified the rule by adopting it into the NSR programs (CAA § 169(2)(c), 42 U.S.C. § 7479(2)(C), CAA § 171(4), 42 U.S.C. § 7501(4)). See *Board of Comm’rs*, 435 U.S. at 134, 98 S. Ct. at 981 (reenactment doctrine); *Philadelphia Gear Corp.*, 476 U.S. at 437-38, 106 S. Ct. at 1937-38; *Hermanos y Compania*, 209 U.S. at 339, 28 S. Ct. at 533; *Isaacs v. Bowen*, 865 F.2d 468, 473 (2d Cir. 1989). EPA reaffirmed the rule in 1992 (57 Fed. Reg. 32,314, 32,326 (July 21, 1992)).

¹¹⁵ See *INS v. Cardoza-Fonseca*, 480 U.S. 429, 447-48, 107 S. Ct. 1207, 1212 (1987) (“If a court, employing traditional tools of statutory construction, ascertains that Congress had an intention on the precise question at issue, that intention is the law and must be given effect.”) (internal quotation marks and citation omitted).

promulgation of the rule, the EPA Administrator stated that the New Source provisions had very limited application to existing coal-fired power plants (Acid Rain Conference at 6 (App. Ex. 36)), and the EPA Assistant Administrator for Air agreed that the definition of modification did not cover “activities at a plant which tend to extend the useful life of that plant or tend to increase the total emissions generated over the total life of that plant.” *Id.* at 192. Neither of these statements makes sense if the rule meant in 1980 what EPA claims it now means -- namely that such activities are the very types of activities that NSR was meant to proscribe and regulate. This Court should reject EPA’s current interpretation of the rule because it is diametrically opposed to what the rule meant when it was promulgated in 1980.¹¹⁶

- b) EPA’s new interpretation of the RMRR provision cannot be lawfully applied in this action because the CAA and the APA require EPA to undertake notice-and-comment rulemaking to change its interpretation of the rule.

Moreover, even assuming that EPA’s proposed standard for the “routine” inquiry is permissible under the statutory and regulatory language, EPA cannot change its established interpretation of the RMRR provision by litigation fiat. Through its statements in the *Federal Register*, its statements to the regulated community and to Congress, and its conduct for at least two decades, EPA has established an interpretation of the RMRR provision under which routine is judged by reference to whether a replacement is common in the industrial category as a whole.¹¹⁷ EPA seeks to apply here a different interpretation of the rule, under which “routine” is judged not by reference to the industrial category, but by reference to the particular unit. It is of no legal consequence that EPA’s new interpretation may “not directly and expressly contradict the regulation itself [and i]nstead it contradicts [the agency’s] prior consistent interpretation of the regulation.”¹¹⁸

¹¹⁶ See *Torch Operating Co. v. Babbitt*, 172 F. Supp. 2d 113, 122-23 (D.D.C. 2001) (“[A] reviewing court should defer to an agency interpretation unless an ‘alternative’ reading is compelled by the regulation’s plain language or by other indications of the [Administrator’s] intent at the time of the regulation’s promulgation.” *Thomas Jefferson Univ. [v. Shalala]*, 512 U.S. [504,] 512, [114 S. Ct. 2381, 2386-87 (1994)] (emphasis added).”).

¹¹⁷ See *Alaska Professional Hunters Ass’n v. FAA*, 177 F.3d 1030, 1035 (D.C. Cir. 1999); *Shell Offshore Inc. v. Babbitt*, 238 F.3d 622, 629 (5th Cir. 2001) (“existing practice” evidence of current interpretation of rule); *American Nat’l Can.*, 126 F. Supp. 2d at 528 (“The lack of enforcement speaks volumes.”).

¹¹⁸ *Shell Offshore*, 238 F.3d at 629.

“Once an agency gives its regulation an interpretation, it can only change that interpretation as it would formally modify the regulation itself: through the process of notice and comment rulemaking.”¹¹⁹

This is because, otherwise, the agency would be able to evade the notice-and-comment requirements -- which are bedrock requirements of administrative law¹²⁰ -- by “in effect amend[ing] its rule” through the guise of a change in interpretation of the regulatory language.¹²¹

Duke’s projects are common in the industry and are therefore routine repairs and replacements under the established interpretation of the PSD regulations. Even if EPA could, in notice-and-comment rulemaking, adopt a different interpretation of the regulations, it cannot apply such a new interpretation to Duke in this litigation, precisely because it did not undertake such a rulemaking process.

... EPA cannot enforce unforeseen interpretations of the [regulations] simply by invoking the spirit of the CAA, and is particularly forbidden from doing so for the first time in the course of litigation. The regulated public must be informed in advance of the rules of the game. Indeed, with respect to agency action, the regulated public also must have an opportunity to participate in setting those rules. That is the essence of notice and comment rulemaking. The EPA cannot escape the strictures of the notice-and-comment rulemaking process by cloaking a substantive [change to the regulations] in the guise of a mere interpretation of an extant regulation.¹²²

VI. CONCLUSION

For the foregoing reasons, Duke is entitled to summary judgment on all of Plaintiff’s claims.

¹¹⁹ *Alaska Professional Hunters*, 177 F.3d at 1033-34 (quoting *Paralyzed Veterans of Am. v. D.C. Arena*, 117 F.3d 579, 586 (D.C. Cir. 1997)); accord *Shell Offshore*, 238 F.3d at 629.

¹²⁰ See CAA § 307(d), 42 U.S.C. § 7607(d); Administrative Procedures Act (APA), 5 U.S.C. § 553.

¹²¹ *Alaska Professional Hunters*, 177 F.3d at 1034; *Shell Offshore*, 238 F.3d at 630 (“An agency that, as a practical matter, has enacted a new substantive rule cannot evade the notice and comment requirements of the APA by avoiding written statements or other ‘official’ interpretations of a given regulation.”); see also *Syncor Int’l Corp. v. Shalala*, 127 F.3d 90, 94-95 (D.C. Cir. 1997) (“Otherwise, the agency could evade its notice and comment obligation by ‘modifying’ a substantive rule that was promulgated by notice and comment rulemaking.”). In *Appalachian Power Co. v. EPA*, 208 F.3d 1015, 1020 (2000), the D.C. Circuit had these stern words for EPA:

The phenomenon we see in this case is familiar. Congress passes a broadly worded statute. The agency follows with regulations containing broad language, open-ended phrases, ambiguous standards and the like. Then as years pass, the agency issues circulars or guidance or memoranda, explaining, interpreting, defining and often expanding the commands in the regulations. ... Law is made, without notice and comment, without public participation, and without publication in the Federal Register or the Code of Federal Regulations. ... An agency operating in this way gains a large advantage. It can issue or amend its ... rules ... quickly and inexpensively without following any statutorily prescribed procedures. The agency may also think there is another advantage--immunizing its lawmaking from judicial review. (internal quotation marks and citation omitted).

¹²² *American Nat’l Can.*, 126 F. Supp. 2d at 530 (citations and footnote omitted).

Respectfully submitted, this the 31st day of January, 2003.

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